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ABSTRACT

The oversight hearing at the second White House Conference on Library and Information Services (WHCLIS2) focuses on the role of the library in three major areas addressed by conference presenters: a literate work force; the productivity to compete in the international marketplace in the 21st century; and a populace fully equipped to participate in the democratic process. In addition to introductory remarks by Senators Claiborne Pell and Paul Simon, this report on the hearing contains statements and/or testimony presented by the following witnesses: (1) Charles E. Reid, Prodevco Group, chair of the National Commission on Libraries and Information Science and the 1991 White House Conference; (2) Charles Benton, Public Media, Inc., chairman emeritus of the National Commission on Libraries and Information Science and the 1979 White House Conference; (3) Richard L. Venezky, National Center on Adult Literacy, chairman of the OTA Advisory Panel and Technology; (4) Vinton Cerf, Corporation for National Research Initiatives; (5) Timothy Healy, New York Public Library; (6) James H. Billington, the Librarian of Congress; (7) Thomas Sobol, Commissioner of Education, State of New York; (8) Joan Ress Reeves, White House Conference on Libraries and Information Services Task Force; (9) Patricia Glass Schuman, president, American Library Association; (10) Enrique Luis Ramirez, San Francisco, CA; (11) Robert Wedgeworth, Columbia University Library School; (12) Lotsee Patterson, representing Native Americans; (13) Laurence Reszetar, White House Conference Youth Caucus; (14) Theresa A. Nellans, Pennsylvania Office for the Deaf and Hearing Impaired; (15) Julianna Kimball, Phoenix, AZ; (16) K. Wayne Smith, OCLC; (17) Virginia Gaines Fox, Kentucky Authority for Educational Television; (18) Frederic J. Glazer, West Virginia Library Commission; and (19) Richard T. Miller, State Librarian, Montana. (BBM)

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LIBRARY AND INFORMATION SERVICES FOR LITERACY, PRODUCTIVITY AND DEMOCRACY

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JOINT HEARING

BEFORE THE

SUBCOMMITTEE ON EDUCATION, ARTS AND HUMANITIES

OF THE

COMMITTEE ON
LABOR AND HUMAN RESOURCES
UNITED STATES SENATE

AND THE

SUBCOMMITTEE ON LABOR-MANAGEMENT RELATIONS

OF THE

COMMITTEE ON EDUCATION AND LABOR
HOUSE OF REPRESENTATIVES

ONE HUNDRED SECOND CONGRESS
FIRST SESSION

OVERSIGHT HEARING AT THE WHITE HOUSE CONFERENCE ON LIBRARY AND INFORMATION SERVICES

JULY 11, 1991

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LIBRARY AND INFORMATION SERVICES FOR LITERACY, PRODUCTIVITY AND DEMOCRACY

THURSDAY, JULY 11, 1991

U.S. SENATE,
SUBCOMMITTEE ON EDUCATION, ARTS, AND HUMANITIES,
OF THE COMMITTEE ON LABOR AND HUMAN RESOURCES,
AND,
U.S. HOUSE OF REPRESENTATIVES,
SUBCOMMITTEE ON LABOR-MANAGEMENT RELATIONS,
OF THE COMMITTEE ON EDUCATION AND LABOR,
Washington, DC.

The subcommittees met, pursuant to notice, at 9:35 a.m., in the East Ballroom, Ramada Renaissance Hotel, 999 9th Street, NW, Washington, DC, Senator Claiborne Pell (chairman of the subcommittee) presiding.

Present: Senators Pell and Simon.

Also Present: Representatives Pat Williams, Richard Neal, and Major Owens.

OPENING STATEMENT OF SENATOR PELL

Senator PELL. This joint congressional hearing on "Literacy, Productivity and Democracy" will come to order.

It is a great pleasure to open this hearing. As the lead Senate sponsor of the resolution that established this conference, it gives me great satisfaction to know that this event, which so many people have worked toward, is now occurring as we meet.

Twelve years have passed since the first White House conference was held in 1979. The positive results of that conference were impressive. These included increases in library services funding, the sharp growth in the number of friends of libraries groups, and most significant, the remarkable increase in public awareness of libraries and how these institutions influence all our lives.

It is largely because of the central role of libraries in the lives of American citizens that this second conference received such a ringing endorsement from members of Congress. Seventy-two Senators cosponsored the resolution that established this second major national meeting on libraries and information services.

Today, Congress has come to the White House conference to meet with you and to hear from you in this special forum. I am delighted that Congressman Pat Williams, a great friend of libraries in the House of Representatives, will be here to co-chair. He is tied up now with the election of the Whip, which is proceeding at exactly the same time as the opening of our hearing.

I recall the joint hearing on the LSCA reauthorization that he and I co-chaired just a year or two ago. At that time, we agreed to await the recommendations of this Conference before seeking major changes in LSCA.

As a procedural matter, I will say that we have many witnesses today and only a limited amount of time to hear from them. I would ask, therefore, that the testimony, after the initial testimony, be limited to the specific amount of time that has been allocated to each witness. I normally prefer to use warning lights, but these could not be moved from the Senate hearing room, so a Senate aide will wave a card at the right time.

All statements will be printed in full in the hearing record, which will remain open for 2 weeks. I am eager to hear from you today and pledge to continue to work with you as we strive to do what is best the years ahead.

I will now recognize my friend and colleague, the Senator from Illinois, Senator Simon.

OPENING STATEMENT OF SENATOR SIMON

Senator SIMON. Thank you very much, Mr. Chairman, and I thank you, Senator Pell, in behalf of everyone here for your leadership in all of this. We are grateful to you.

The people who are here are stuck with hearing me on Saturday so I am not going to talk about libraries right now. I am here for one specific reason, and then I have to get up to a Foreign Relations Committee meeting because the chairman of the Foreign Relations Committee is really a tough ogre, and he's very tough on those of us who are on that committee, and I've got to be up there on time. [Laughter.]

For those who don't know it, the chairman of the Senate Foreign Relations Committee is Senator Pell. [Laughter.]

My reason for being here is to introduce someone who has provided leadership in my State and in the Nation in the whole area of libraries and that is Charles Benton. He was the chair of the first White House Conference on Libraries. He has been creative; he has been a fighter for the things that are important for libraries, and he is just a good citizen. He and his wife Marge have been involved in just about every good cause that comes along. So I am very pleased and honored to present him to you, and I apologize to him and to the other witnesses for leaving immediately after introducing him.

It is a pleasure to be here. Thank you, Mr. Chairman.

Senator PELL. I thank you very much indeed, Senator Simon, and my apologies to Senator Biden—I should be up there also at that hearing.

Senator SIMON. Just so the members of this group understand, Senator Pell chairs the Foreign Relations Committee, and our first witness today is Secretary of State Jim Baker, and Senator Pell is here staying with the librarians rather than going up to listen to Jim Baker. [Applause.]

Senator PELL. Thank you very much indeed, Senator Simon, for that nice plug. I appreciate it.

We now come to the first panel, with Hon. Charles Reid, senior vice president of the Prodevco Group, who is the chairman of the National Commission on Libraries and Information Science, and chairman of the 1991 White House Conference on Library and Information Services; and Hon. Charles Benton, chairman of Public Media, Inc., Chicago, IL, and chairman emeritus of the National Commission and chairman of the 1979 Conference.

Mr. Reid, please proceed.

STATEMENTS OF CHARLES E. REID, SENIOR VICE PRESIDENT, PRODEVCO GROUP, FT. LEE, NJ, CHAIRMAN, U.S. NATIONAL COMMISSION ON LIBRARIES AND INFORMATION SCIENCE, AND CHAIRMAN, 1991 WHITE HOUSE CONFERENCE; AND CHARLES BENTON, CHAIRMAN, PUBLIC MEDIA, INC., CHICAGO, IL, CHAIRMAN EMERITUS, U.S. NATIONAL COMMISSION ON LIBRARIES AND INFORMATION SCIENCE AND 1979WHITE HOUSE CONFERENCE

Mr. **Reid**. Thank you.

On behalf of the U.S. National Commission on Libraries and Information Science, and the White House Conference on Library and Information Services, I want to thank you, Chairman Pell, and Chairman Williams, and the 250 members of the House and Senate who cosponsored the legislation that called for this second White House Conference on Libraries and Information Services.

This conference will culminate in a report to the President and to Congress which will assist you in formulating relevant national policies to assure adequate library and information services to all citizens. I am pleased to be able to join today's witnesses to offer some views that might assist you in formulating these relevant national policies.

You will be pleased to know that approximately 900 delegates and alternates selected by their States, and representing all 50 States and 9 U.S. Territories, Native American tribes, and the Federal library community, are participating in this conference.

In addition to developing a library and information component for public policy recommendations, we are hoping that this conference will provide a much needed and clearer definition of the important role of libraries in education and the critical role of information services in our Nation's future. These clearer definitions will address not only the relationship of libraries and information services to structured educational systems, but will include the role of library and information services in the development of fundamental literacy and reading skills, and the opportunity for lifelong learning.

I speak from personal experience. Curiosity, coupled with reading and learning skills I developed as a child with urging from my parents, teachers, and a dedicated librarian enabled me, a high school dropout who left school to enlist in the Navy at age 17 during World War II, to utilize available library and information resources, not only to operate successfully in a competitive business environment, but to maintain a level of competence which has sustained me throughout almost 40 years of public service.

I truly believe that libraries and information services are one of the real measures of our Nation's wealth and one of our most important national resources. Indeed, I am talking about library and information services as a source of cultural richness to young people, to students, members of corporations, elected officials, and in fact, the entire Nation.

One of the goals of "American 2000: An Education Strategy" is to have all school age children ready to learn when they enter elementary school. Libraries have traditionally been the critical contributors to the educational well-being of preschoolers. Yet today, support for libraries has dropped rather dramatically in many areas.

We have to ask ourselves these questions: What is the definition of the role of libraries and information services in our society? How do we arrive at the best national policies professed and implemented regarding libraries as essential services and as the essential foundation for quality education? And what is our ability to provide equal opportunity of access to public information in the most economical way?

Until these questions are addressed, I am afraid our libraries will continue to have difficulty competing for funding with other essential services.

It is libraries and information services that are the main contributors to our Nation. Libraries and information services enhance literacy, libraries and information services increase productivity, and libraries and information services strengthen democracy.

As our delegates vote on the resolutions tomorrow night, I hope we will produce a reaffirmation of our values, a recognition of library and information services as forces to assure a just and humane society, and recognition of the important role they serve as building blocks for our Nation.

This conference is at the cutting edge of some of the most critical issues facing our Nation: a literate work force; the productivity to compete in the international marketplace in the 21st Century, and a populace equipped to fully participate in the democratic system.

At the first White House Conference on Library and Information Services in 1979, 64 resolutions were presented to the President, Congress, and Government agencies at the Federal, State and local levels for improvements to library and information services nationwide. To date, action has been taken on 55 of these, including: Intensified efforts to use new technologies to preserve books and papers; increased use of satellite communications, video techniques and cable TV in the expansion of the library and information services; an active role for libraries in adult literacy programs, and adoption of standards for publishing, producing, organizing and transmitting information, and for telecommunication and computer technology.

Now, in conjunction with the second White House Conference on Libraries and Information Services, some 60 State, Territorial, Indian tribe, Federal, network systems and international theme pre-conferences held nationwide in 1990–1991 resulted in approximately 150,000 people being involved at the grassroots level. They generated a total of 2,500 recommendations which have been grouped into 10 broad topic areas and condensed into 98 issue statements distributed to all delegates and alternates for their consideration and deliberations in the development of recommendations at this historic conference.

The second conference will strive to find pathways to meet the informational needs of the United States and the world in the 21st Century.

We are looking forward to working with you in this great endeavor, Senator.

Senator **Pell**. Thank you very much indeed, Mr. Reid.

We now turn to Charles Benton, chairman emeritus and an old friend.

Mr. **Benton**. Thank you very much, Senator. It is a great pleasure to be here, and thank you for being here.

I am here today because Charles Reid, the NCLIS and White House Conference chair, appointed me as a delegate-at-large to the second White House Conference on Library and Information Services, carrying on the tradition of bipartisan support of library and information services that has always characterized the commission's successes.

What I'd like to do this morning is to give you a brief background of the evolution of the three overarching themes of this conference, which built on the five themes of the first one. This shows that we have a continuum in the critical process of assessing user needs nationwide at the grassroots level as a foundation for establishing responsive national policies by the legislative and executive branches of our Government. I also have a recommendation concerning the need for continuing this process into the future.

There is considerable excitement about the overarching themes of Library and Information Services for "Literacy, Productivity and Democracy" that were identified in 1985 as the conceptual framework for this White House Conference. My written testimony chronicles the process by which the White House Conference Preliminary Design Group, appointed by Elinor Hashim, my successor as chairman of NCLIS, and chaired by Bill Asp, most ably, the State librarian from Minnesota, and how they developed these themes in 1985.

Let me now move from process to content and briefly encapsulate our vision for you. First, Library and Information Services for Expanding Literacy. By "literacy" we had in mind not simply the three R's, but the communications skills necessary for survival in the information society in which we live—literacy not only for young people, but for the over 25 million persons or one-fifth of the adult population of the United States who are unable to read beyond the fifth grade level. In our society, which daily becomes more information-oriented and more economically dependent on the effective use of knowledge. The definition of literacy should be expanded to include the ability to find and use information. That is, information literacy, computer literacy, even interactive media literacy.

Consider also the literacy rates, not to mention the foreign language proficiencies in this country compared to those in Western Europe or Japan.

The basic and expanded literacy theme was a logical extension of the first two themes of the 1979 White House Conference which were "Library and Information Services for Meeting Personal Needs," and also "Library and Information Services for Lifelong Learning." It now becomes a precondition for strengthening our country's economic productivity and participatory democracy.

Second, Library and Information Services for Increasing Productivity. Here, we were thinking not only of organizational, institutional and business productivity, but especially of individual productivity. How can one be productive without being information-literate? Information, knowledge, and the application of skilled intelligence are the new raw material of international commerce and competition and are today spreading throughout the world as vigorously as miracle drugs, synthetic fertilizers, and blue jeans did earlier. If information is power, isn't it reasonable to say that library and information services are a key to productivity? They are indispensable to the economic well-being of our Nation.

Research and development depend on access to information. Libraries are needed by industry, business and Government as they deal with the need to develop new products and services, to adopt new technology and to increase productivity.

Again, the productivity theme grew logically out of the third theme of the first White House Conference, "Library and Information Services for Organizations and Professions."

Third, Library and Information Services for Strengthening Democracy. The big idea here was to expand the use of library and information services by public officials and other Government decisionmakers in support of their public responsibilities of governance, and also by citizens to give them ready access to the information sources they need in order to make better choices in our democratic society.

Here again, if information is power, library and information services should be a key to citizenship based upon access to as wide a range of information options as possible. In short, a democratic society depends on the informed participation of its people. And as Tim Healy, president of the New York Public Library, reminds us: "Libraries exist essentially in service to freedom."

The democracy theme clearly relates to "Library and Information Services for Governing our Society," the fourth theme of the previous conference and more subtly to the fifth theme in 1979 of "International Understanding and Cooperation" where the ideas of democracy now seem to be sweeping the world.

I look forward to the resolutions coming out of this conference as eagerly as you do. They should help shape your priorities in support of library and information services legislation at all levels.

It is interesting to note that in February of 1990, President George Bush and the National Governors' Association issued a joint statement outlining the goals for American education, of which the fifth goal was, quote, "By the year 2000, every adult American will be literate and will possess the knowledge and skills necessary to compete in a global community and exercise the rights and responsibilities of citizenship"—here also literacy, productivity and democracy are the key elements, as Congressman Major Owens also passionately shared with us in his keynote speech on "Library and Information Services for Democracy" yesterday afternoon.

Having had the honor to chair the first White House Conference on Library and Information Services ever held, I experienced the value of what is, at its best, a massive nationwide needs assessment process that then feeds into the formulation of public policy at community, State and national levels. In fact, as Mr. Reid mentioned, 55 of the 64 resolutions passed at the first conference have been implemented in whole or in part during the past 12 years. Managed well, the White House Conference process is well worth the time, money and effort involved.

For this reason, I would suggest that you consider, and I hope that the White House Conference delegates will pass a resolution recommending, that there be a third White House Conference in 1997, which would be in only half the time elapsed since the first one in 1979. You will note that this would not only come immediately after a Presidential election, giving some real time for the Congress and the President to work together on the emerging recommendations, but also this could be a most useful vehicle for beginning to chart our future in the increasingly complex information age of the 21st Century.

The proverbial "information explosion" we are experiencing now would suggest that we need to accelerate the time frame for reconsidering library and information policies in light of new, expanded and competing services and needs.

Please consider the continuation of this White House Conference process for library and information services based upon the positive results of the first two conferences.

Thank you for your continuing support of library and information services for expanding literacy, increasing productivity and strengthening our democracy.

Senator Pell. Thank you very much.

[The prepared statement of Mr. Benton follows:]

Prepared Statement of Mr. Benton

My name is Charles Benton and I served as Chairman of the first White House Conference on Library and Information Services (WHC) in November of 1979. I was also serving then in my first term as Chairman of the U.S. National Commission on Libraries and Information Science (NCLIS), the permanent, independent agency which advises both Congress and the President.

I am here today because Charles Reid, the NCLIS and WHC Chairman, appointed me as a Delegate-at-Large to this second White House Conference on Library and Information Services, carrying on the tradition of bi-partisan support of Library and Information Services that has always characterized the Commission's successes.

What I would like to do this morning is to give you a brief background on the evolution of the three overarching themes of this Conference, which built on the five themes of the first one. This shows that we have a continuum in the critical process of assessing user needs nationwide, at the grassroots level, as a foundation for establishing responsive National Policies by the Legislative and Executive Branches of our Government. I also have a recommendation concerning the need for continuing this process into the future.

There is considerable excitement about the overarching themes of Library and Information Services for: "Literacy," "Productivity," and "Democracy" that were identified in 1985 as the conceptual framework for this White House Conference. Let me tell you briefly how they came to be.

Elinor Hashim, the Chairman of the National Commission who succeeded me, appointed a "White House Conference Preliminary Design Group" to come up with recommendations for priorities and procedures for a second White House Conference on Library and Information Services. Bill Asp, the State Librarian from Minnesota, was our most able Chairman and the group included leading professional and public representatives from the library and information services community at the Federal, State and local levels, including the private sector. I was privileged to serve as an ex officio member of that group.

A point of departure for our group was a report by Sandra Milevsky at the Congressional Research Service, giving us an analysis of the structure and effectiveness of White House Conferences over the years, especially those held since our first Conference in 1979. This analysis showed that White House Conferences as a genre had not done particularly well since 1979, with the leading exception being the one on Productivity. It was also noted that the issue of "Literacy" was not only emerging as one of the central challenges for library and information services, but that it was the primary concern of Mrs. George Bush. In the mid 80's, for us to get the White House behind a second White House Conference, we needed to be focusing on issues of basic concern to them as well as to the Nation as a whole.

The third theme of "Democracy" emerged out of a speech given by Gordon Ambach, then Commissioner of Education of the State of New York and currently Executive Director for the Council of Chief State School Officers, at an annual meeting of WHCLIST in Princeton, New Jersey. He was concerned about "Library and Information Services for Governance." Through subsequent discussions at our Preliminary Design Group meetings, Bridget Lamont, the Chief Officer of the State Library of Illinois, made the suggestion that what we were really talking about wasn't so much "Governance' as "Democracy"—and this gave us our third theme.

To move from who made this happen to an understanding of the big ideas—that is, from process to content—let me try and briefly encapsulate our vision for you:

1. *Library and Information Services for Expanding Literacy.* By "Literacy" we had in mind not simply the 3 "R's", but the communication skills necessary for survival in the information society in which we live. Literacy not only for young people, but for the over 25 million persons, or one fifth of the adult population of the U.S., who are unable to read beyond a 5th grade level. In our society that daily becomes more information-oriented and more economically dependent on the effective use of knowledge, the definition of literacy should be expanded to include the ability to find and use information; that is—Information Literacy, Computer Literacy, even Interactive Media Literacy. Consider also the literacy rates, not to mention the foreign language proficiencies, in this country compared to those in Western Europe or Japan. The basic and expanded Literacy theme was a logical extension of the first two themes of the 1979 White House Conference: Library and Information Services for: "Meeting Personal Needs" and also for "Life-Long Learning." It now becomes almost a precondition for strengthening our country's economic productivity and participatory Democracy.
2. *Library and Information Services for Increasing Productivity.* Here we were thinking not only of organizational, institutional and business productivity, but especially of individual productivity. How can one be "productive" without being "information literate"? Information, knowledge, and the application of skilled intelligence are the new raw materials and of international commerce and competition, and today are spreading throughout the world as vigorously as miracle drugs, synthetic fertilizers and blue jeans did earlier. If information is power, then isn't it reasonable to say that "library and information services are a key to productivity? Libraries are information agencies in an information society. They are indispensable to the economic well-being of our Nation. Research and development depend on access to information. Libraries are needed by industries, business, and government as they deal with the need to develop new products and services, to adopt new technology, and to increase productivity. Again, the Productivity theme logically grew out of the third theme of the first White House Conference, "Library and Information Services for Organizations and Professions."
3. *Library and Information Services for Strengthening Democracy.* The big idea here was to expand the use of library and information services by public officials and other governmental decision makers in support of their public responsibilities of governance; and also by citizens to give them ready access to the information sources they need in order to make better choices in our democratic society. Here again, if information is power, library and information services should be a key to citizenship based upon access to as wide a range of information options as possible. In short, a democratic society depends upon the informed participation of its people. And, as Tim Healy, President of the New York Public Library, reminds us, "Libraries exist essentially in service to freedom." The Democracy theme clearly relates to the fourth theme of "Library and Information Services for Governing our Society" and more subtly to the

fifth theme of "International Understanding and Cooperation" ... where now the ideas of democracy seeming to be sweeping the world!

I look forward to the resolutions coming out of this Conference as eagerly as you do. They should help shape your priorities in support of library and information services legislation at all levels. It is interesting to note that in February of 1990, President George Bush and the National Governor's Association issued a joint statement outlining the goals for American education of which the fifth goal was: "By the year 2000, every adult American will be literate and will possess the knowledge and skills necessary to compete in a global community and exercise the rights and responsibilities of citizenship" ... Literacy, Productivity and Democracy!

Having had the honor to Chair the first White House Conference on Library and Information Services ever held, I experienced the value of what is at its best—a massive nationwide needs assessment process, that then feeds into the formulation of public policy at community, State and national levels. In fact, 55 of the 64 Resolutions passed at the first Conference have been implemented in whole or in part during the past twelve years. Managed well, the White House Conference process is well worth the time, money and effort involved.

For this reason, I would suggest that you consider and hope that the White House Conference Delegates will pass a resolution recommending that there be a third White House Conference in 1997, which would be in only half the time elapsed since the first one in 1979. You will note that this would not only come immediately after a Presidential election, giving some real time for the Congress and the President to work together on the emerging recommendations; but also this could be a most useful vehicle for beginning to chart our future in the increasingly complex information age of the 21st century. The proverbial "information explosion" we're experiencing now would suggest that we need to accelerate the timeframe for reconsidering library and information policies in light of new, expanded, and competing services and needs.

Please consider the continuation of this White House Conference process for Library and Information Services based upon the positive results of the first two conferences. Thank you for your continuing support of library and information services for expanding literacy, increasing productivity and strengthening our democracy.

Senator PELL. We have been joined by our co-chairman, Congressman Pat Williams, who is chairman of the oversight committee on the House side.

OPENING STATEMENT OF REPRESENTATIVE WILLIAMS

Mr. WILLIAMS. Thank you, Mr. Chairman.

I want to thank you, Mr. Reid and Mr. Benton, for your good advice and counsel here this morning.

Twelve years ago, a similar joint hearing was held to receive the recommendations of the first White House Conference on Libraries. Those recommendations, as I think you all recall, became the foundation of library policy during this past decade.

Last Congress, as you know, we reauthorized the major Federal law having to do with our Nation's public libraries, the Library Services and Construction Act, and in so doing the House and Senate both agreed that we should make very few changes, anticipating this conference and the counsel and advice of the people who could come before us both at this hearing and following your conference with your own individual recommendations as well, of course, as the recommendations of this entire body.

You have now had the chance over the past few days and most particularly during the months of the State and regional conferences to think through your historic efforts. The challenges that face libraries today and that will no doubt face them tomorrow in America are far different than those which were considered by the first White House Conference on Libraries. The Congress of the United States eagerly anticipates your recommendations. We intend to give them full consideration, to follow your lead, and we are delighted to have you all here today.

I am particularly pleased that we could move this hearing off the Hill, but the Hill schedule both on the floor and in committees is of such a busy nature this week that you can see the awkwardness of the vacant chairs before you; that is because most members will not be able to be both down here and up there.

As you may have noticed, I was late in coming, and I am going to be very early in leaving, because we are in the middle, as Senator Pell mentioned to you, of replacing the departing majority whip, Bill Gray, so we must be voting on that in literally just a few minutes. I'll return as I can and will, of course, read all of the testimony that is presented to us.

Mr. Chairman, I have no questions of either Mr. Reid or Mr. Benton but again want to thank them for their counsel.

Senator PELL. Thank you very much.

I just had one question, Mr. Reid, and that is what do you see as the most pressing recommendation that can come out of this conference?

Mr. REID. I think a very clear and definitive role of libraries in education, Senator, and not just the structured educational programs, but both the structured and nonstructured, and the relative responsibility of the Federal, State and local governments for the support of that role.

Senator PELL. Thank you.

I thank Mr. Benton for being with us as well. The contribution of the Encyclopedia Britannica to the world's body of knowledge is tremendous. I remember being so impressed with the way your father would send a copy to chiefs of government around the world. I would go on these Foreign Relations trips, and there would always be an Encyclopedia Britannica on the desk—although I must say I like the old alphabetical system. [Applause.] I found the "Micropedia" and the "Macropedia" turned me off a bit, and from the reception that remark has in this room, you can see how well-advised your successors at the encyclopedia are.

I thank you both very much for being here.

Mr. BENTON. Thank you, Senator.

Mr. REID. Thank you, Senator.

Mr. WILLIAMS. We'll ask our next panel to join us—Dr. Venezky, Dr. Cerf, Dr. Healy, Dr. Billington and Dr. Sobol. We thank each of you for joining us this morning.

Dr. Venezky, please proceed.

STATEMENTS OF RICHARD VENEZKY, CO-DIRECTOR, RESEARCH AND DEVELOPMENT, NATIONAL CENTER ON ADULT LITERACY, DEPARTMENT OF EDUCATIONAL SERVICES, UNIVERSITY OF DELAWARE, NEWARK, DE, AND CHAIRMAN, OTA ADVISORY PANEL ON TECHNOLOGY; VINTON CERF, VICE PRESIDENT, CORPORATION FOR NATIONAL RESEARCH INITIATIVES, RESTON, VA; TIMOTHY HEALY, PRESIDENT, NEW YORK PUBLIC LIBRARY, NEW YORK, NY; JAMES H. BILLINGTON, THE LIBRARIAN OF CONGRESS, WASHINGTON, DC; AND THOMAS SOBOL, COMMISSIONER OF EDUCATION, STATE OF NEW YORK, ALBANY, NY

Mr. **Venezky**. Good morning. I am Richard Venezky. I am Unidel Professor of Educational Studies and a professor of computer sciences at the University of Delaware. I am also co-director for research and development of the new National Center on Adult Literacy, and I chair—for reasons that are hard to explain sometimes—the advisory panel for the Office of Technology Assessment study of technology and adult literacy.

Obviously, all the normal caveats apply. None of these organizations should be held responsible for anything I say that doesn't find favor in your eyes this morning.

My purpose here this morning is to reinforce a particular view of literacy and to situate library literacy programs in the vast network of literacy service providers. I am sure, as most of you have been overtold, literacy has a whole variety of definitions. It centers somehow on print; it obviously involves reading and writing; you just heard Mr. Benton extend it to communications, which is something that a large number of others would like to do.

My colleagues and I have committed to print a number of ideas about how to define literacy and about the distribution of literacy abilities among young adults, and I have made these publications available to you this morning, in particularly one called "Toward Defining Literacy" and another, "The Subtle Danger."

The main points about literacy that I would like to reinforce here are that first, literacy is a continuum of skills; it is not an all-or-nothing ability like measles or—if you'll pardon me, some of you here in the room—pregnancy.

Second, illiteracy, the total lack of any literacy ability whatsoever, is extremely rare in America. America's problem is not illiteracy; it is the low level of literacy throughout the population. Low literacy is both chronic and common, and its consequences, I am sure you have heard over and over and I need not repeat here.

Next, adequate literacy ability is not an absolute. What was adequate for the Minutemen is not adequate today. And what we may hear, say, is adequate functional literacy for citizenship, work, or whatever in America probably will not be adequate 20 or 30 years from now.

Low-literate adults, furthermore, tend to have many differences from children who might score at the same level on any given literacy examination. They have responsibilities for work, for citizenship, for families, in many cases. They generally have had very negative experiences in school and they are quite reluctant to be dragged into yet again another classroom situation to be tested, to be evaluated, to be given grades.

Probably fewer than 10 percent of all adults who need literacy assistance willingly ask for it. The research and development program at the National Center on Adult Literacy, which is consonant with the President's literacy goals for the year 2000, has a number of very basic principles that it is working from, one of which, and which I feel is the most important for what we are here for today, is that this country needs multiple paths to literacy. We cannot and we will not be able to depend upon any single program, not matter how well-funded it might be.

Workplace and correctional institution programs are going to be needed, general education degree programs, adult basic education, family literacy, volunteer tutoring, and many other approaches are going to be required to meet this particular country's goals.

Our population is too diversified; their needs vary too much; their entry-level abilities are so different, and their beliefs and attitudes about learning and whatever are also quite different.

America's public libraries have begun through Titles I and VI of the LSCA to form a very important link within this literacy delivery network. They are the main point for the low-level literacy needs to come into a program that is comfortable to them.

The average adult who would not admit to his family that he is going to a literacy class would say he is going to the library. Many who are unwilling or unable to profit from adult literacy programs are willing to go into voluntary programs.

What must be done is to support both the organizational role of libraries in literacy and the acquisition of collections of high-interest, low-vocabulary materials, and third, to support digital technology for information access and computer-assisted instruction. These are, I feel, essentials for continuing to allow libraries to fit into the vast network of service delivery, and if this network is ever to reach the goal of accommodating even 50 percent of those in need, we will have to make a large, large expansion.

Thank you for your patience.

Senator **Pell**. Thank you very much.

[The prepared statement of Mr. Venezky follows:]

PREPARED STATEMENT OF MR. VENEZKY

The comments that follow address the role that libraries can play in promoting literacy in America. Since improved literacy is the primary goal of the recommendations made here, some attention will be given below to the definition of this entity and to Its distribution within the adult U.S. population. The basis for my remarks here is over 25 years of research on reading, writing, and other components of literacy, plus nearly the same amount of time spent in development of literacy programs. More recently I have acquired the roles of co-director for research and development of the National Center on Adult Literacy, which is jointly funded by the Departments of Education, Labor, and Health and Human Services; and chairman of the advisory panel for the Office of Technology Assessment's study of Technology and Adult and Family Literacy. All of the usual caveats apply, however; that is, these remarks represent my own views and not those of the various organizations with which I am affiliated.

DEFINING LITERACY

By literacy is generally meant a set of skills that center on the processing of print. Beyond this core definition, however, agreement wanes. Some prefer to hold the line with reading and writing; others extend the field of concern to at least basic mathematics, while others of a more expansionist bent insist on including a variety of additional skills such as oral communication and interpersonal relations. Since my colleagues and I have recently committed to print some of our ideas on this topic (Venezky, Wagner, & Ciliberti, 1990) and this publication has been made available to the Joint Committee, I will restrict my concerns with definition to those features that are essential for justifying a role for libraries in the promotion of literacy.

Literacy is, first and foremost, a culturally defined skill, deriving its definition from the needs of a given society at a given point in time. What was considered adequate literacy for the Minutemen would not be considered sufficient today, and I doubt that what we consider adequate today will suffice for the year 2091. Six hundred years ago, a person who could read but not write might be considered literate. One hundred years ago, a person who could read and write, but not figure much beyond simple addition might have been counted among the literate. Today we assume that for comprehending everyday texts and communicating basic ideas, reading, writing, and basic mathematics are required. These are the core skills that most people accept for defining the components of literacy and therefore are the main skills that functional literacy tests assess (e.g., ETS Young Adult Literacy Survey and the current National Adult Literacy Assessment). Literacy is, therefore, not a single skill but a group of skills, and people vary in the levels of mastery they have obtained in each of these.

Second, literacy ability, as we know how to measure it, falls along a continuum for any large population. There is, therefore, no natural point that can be set for separating literates from illiterates. We can attempt to relate different ranges of performance with the average requirements of different jobs, professions, and tasks, and attempts to do this are now underway by both researchers and national commissions (e.g., SCANS). Furthermore, the Young Adult Literacy Assessment (Hirsch & Jungeblut, 1986) showed that the number of young people who might be classed as illiterate was relatively small—perhaps 4-5 percent of the population. On the other hand, the general level of literacy among the lower 25 percent of the young adult population and especially among minorities, was frighteningly low. America does not have an illiteracy problem; instead it has a chronic literacy problem (Venezky, Kaestle, & Sum, 1987).

Whether America has 15, 25, 50, or 80 million persons whose literacy skills are below what is desired for full participation in society is a vacuous argument. We do know that millions lack a high school education, that millions more can not find work because of their low literacy abilities and that the literacy requirements of the jobs market are projected to increase over the coming decade (Johnston, 1987). In a global economy, American skills are becoming less and less competitive (Lapointe, Mead, & Phillips, 1989). With only an estimated 7 percent of those who need literacy assistance actually receiving it, the educational task that we face is obvious, even without agreement on an exact figure for those who lack functional literacy.

Finally, while the emphasis here is on literacy, we must understand that literacy by itself does not create a productive citizen, worker, or family member. Literacy is a foundation for acquiring the skills needed for success in these domains. We should not, therefore, be satisfied by the simple acquisition of literacy on the part of an individual or group. Literacy has to be a first step not a final step in an educative process.

THE ADULT LEARNER

Adults who need assistance in literacy differ from elementary and secondary level students in critical ways. First, adults with low literacy skills generally have had bed experiences with formal education. They may have been labeled as learning disordered or held back one or more grades; therefore, they are not, in general, anxious to return to a formal class setting and most are ashamed even to have others know of their limited reading and writing abilities. Second, while elementary and secondary level students are "professional" students, few adults have this luxury. Most of the latter have assumed family or job responsibilities. They cannot, therefore, be expected to spend 4-7 hours per day in a class and then go home and do several hours more of homework.

Low literacy adults often have attitudes and beliefs that am counter productive for literacy advancement. Many of these adults have negative attitudes about schooling. They often believe that what schools teach is good only for school related tasks. The knowledge that is needed to get ahead in the world, they assume, comes only from the street. Then, the reading strategies of adults differ from those of children. An adult who reads at, for example, a fourth grade level, usually has quite different reading skills from a fourth grader who reads at the fourth grade level. The adult brings many years of living experience to the reading task and therefore can apply general background knowledge that most grade schoolers lack. The adults actual reading skills in such a comparison—decoding, vocabulary, etc. might be lower than those of the average fourth grader.

IMPROVING AMERICA'S LITERACY SKILLS

Given the nature of the adult learner and of literacy itself, several general principles for advancing literacy have been developed by the National Center on Adult Literacy. These principles define both a research agenda and a model for service delivery and thereby constitute a background for the recommendations made here.

1. *Literacy embedded within life situations.* For the child, schooling is generally separated from everyday life. Without major responsibilities for earning a living, caring for a family, and contributing to one's community and country, the child's main occupation is education. What is learned in school, furthermore, cannot easily be matched by the child to what is needed for adult life. In contrast, most adult learners are confronted with adult responsibilities: family, work, and citizenship in particular. A single parent on welfare with a small child to care for cannot devote her full energies to literacy classes, nor can a factory worker struggling to maintain a family and support aging parents. Literacy programs, to be of use to these people, must be matched to their life needs and must be coordinated with other social services. To attract and retain individuals in literacy programs, we must understand better their life needs, their family functioning, and the various impacts that higher literacy levels might have on their lives.

2. *Multiple paths to literacy acquisition.* Given the diverse population that literacy programs must serve and the complicated lives that these people lead, a diversified delivery system is required. Literacy programs need to be developed for a variety of special needs and to be placed where ever individuals are who need them: workplace, housing development, correctional Institution, community college, library, etc. To make such a system work and to ensure that individuals who move from one type of program to another receive services tailored for their needs, the special interests and concerns of different types of adult learners must be understood and techniques must be found to incorporate this knowledge in curriculum design and service delivery. In addition, information systems are needed to facilitate continuity of literacy development as individuals move in and out of programs over their life spans.

3. *Understanding adult learning processes.* How children learn to ride a bicycle, read, do mathematics, and understand science concepts are all active being studied today. We have no lack of theories about the development of addition and subtraction ability in children or of early reading development. But the adult learner is little understood and only a small amount of research is currently focused on this area. Most of the theories about adult literacy acquisition are extensions, with minimal data, from work done with children. On learning to write or do mathematics beyond the ages of 13 or so we know even less. The long term improvement of literacy instruction requires a focus on the adult learner, an understanding of the ways in which new information and new processes are acquired and retained and how the adult learns to monitor his or her own progress.

4. *Information-based decision making.* The knowledge base for adult literacy is weak. Besides gaps in our understanding of adult learning, we lack effective tools for assessing the adult learner and for evaluating adult learning programs. Many data bases involving national samples of adult literacy abilities have not been fully explored; modeling techniques commonly used to advantage in the social sciences have rarely been applied; and techniques for evaluating program implementation have been given limited attention. To inform individuals, programs, and state and national policy, we must have better assessment instruments and techniques, better program evaluation models, and more powerful modeling tools.

THE ROLE OF LIBRARIES

The evolution of the modern library is in part a transformation from a book acquisition and loaning service to a full information provider (Boorstin, 1984; Cole, 1987). A library educator, Robert D. Stueart, has summarized this shift succinctly. "This change in the library's role from warehouse to supermarket, from a passive role of preserver to an active one of purveyor, has brought greater emphasis on service, identifying needs and communicating solutions, rather than just on the process of lending books" (Cited in Cole, 1987, p. 269). As part of this new role for libraries, training for information access has become an essential service. The 1979 White House Conference on Library and information Services, the 1984 report from the Librarian of Congress to the Congress (Books in our Future) and the supplementary volume issued by the Library of Congress in 1987 (Cole, 1987), and the work on literacy by the American Library Association and the Coalition for Literacy, all have contributed to the current role which public libraries play in the adult literacy training network.

Title VI of the Library Services and Construction Act Amendments of 1984, P.L. 98-480 has also been a successful supporter of library literacy programs and has demonstrated how Federal funding can encourage an expansion in the role of libraries. In fiscal year 1991, for example, $8,163,000 was distributed through a competitive process by the Title VI office to library literacy programs. The characteristics of the programs funded through this Act have been well documented through 1989 and verify the essential role which library literacy programs have assumed throughout the U.S.A. for entry level instruction in adult literacy (Seager, Roberts, & Lincoln, 1987; Humes & Cameron, 1990).

LIBRARIES AS LITERACY SERVICE PROVIDERS

My basic message to this Joint Congressional Committee is that if the President's goals for the year 2000 are to be met for literacy, a vast expansion in the literacy service delivery network must occur.

Given the nature of the adult earner, no single delivery mechanism can reach a major part of the potential audience. A multitude of different programs will continue to be required, reaching adults at the worksite, in schools, correctional institutions, libraries, housing developments, and the like. Each of these must expand to accommodate larger numbers of learners. Exactly how many distinct types of delivery programs exist is not totally clear. The best attempt so far to survey the entire literacy delivery system is reported by the California Workforce Literacy Task Force (California Workforce Literacy Task Force, 1990). In this report, 13 different delivery systems in the state of California are identified, ranging from adult schools that enrolled 199,500 students, to Literacy Volunteers of America, who served an estimated 1,750 adult learners. (The California public libraries served 24,249 adults in literacy programs during this same period—1990-91).

Library literacy programs are especially important because they tend to serve the lowest ability learner—the adult who is unwilling or unable to enroll in higher level literacy programs and often does not want family or friends to know that he or she is receiving literacy assistance. St. Paul, Minn., in proposing to co-ordinate its literacy services through a Literacy Center, nevertheless noted the need for satellite programs, especially for those who "may have anxieties and fears about returning to a formal learning program" (Jennings, 1988, p. 37). A one-to-one tutorial program in the Chester County Library, Exton, Pennsylvania, reports that "Once they have met their goals, adult students are referred to appropriate educational programs, vocational schools and community colleges" (Seager, Roberts, & Lincoln, 1987, p. 197). In FY 1989, the last year for which analyses of projects funded under the LSCA Title VI program are available, 75 percent of the grantees described a "close working relationship" with other literacy providers in their communities (Humes & Cameron, 1990, p. 11).

Unfortunately, many library literacy programs today are scraping by on a patchwork of multiple source funding and volunteerism. One such program is located in Wilmington, Delaware, called Literacy Volunteers at the Wilmington [Delaware] Library. This program receives federal funds under the LSCA Title VI Act, Department of Public Instruction funds from what in the future will be federal block grants, Title funds through the Delaware State Division of Libraries, corporation grants, and donations from individuals. The library provides in kind support (office space, duplication, telephone, postage, etc.). Although this program has expanded from serving approximately 120 adult learners in 1988 to about 250 today, too much of its staff time is devoted to proposal writing, given its multiple sources of funding. This program is typical of thousands of other library literacy programs In America that serve as entry points to education for adults with limited literacy abilities.

For libraries to fulfill their role as literacy service providers In the President's Year 2000 plan, significant new funds need to be earmarked for library literacy programs and the various sources of funds that many libraries draw upon need to be consolidated. Library literacy programs should be a joint interest of the Departments of Education, Labor, and Health and Human Services.

LIBRARY COLLECTIONS

The second area in which libraries can help promote literacy is in the library collections themselves, and in particular in the acquisition of high interest, low vocabulary reading materials. Where only four years ago Congress was informed that few publishers were willing to risk publication of materials for low literacy adults (Eastman, 1989, today there is an extensive list of such materials (Ryan, 1989). Some libraries have already begun to acquire small collections of these materials and many library volunteer programs have purchased materials on their own. These materials include not only books but at least one weekly newspaper.

For the smooth integration of adult learners into the modern information society, major allocations are required for high interest, low vocabulary materials. Besides assisting libraries in building such collections, encouragements need to be found for publishers so that a wide range of low vocabulary materials will be published, Including science, sports, travel, biography, technology, and general fiction.

TECHNOLOGY

Public libraries can be found in virtually every community in the United States, reaching probably more than 90 percent of the country's total population. However, the resources available in our public libraries vary dramatically and costs for allowing every library to have staffs and local holdings equal to those of the best are far beyond what this country could afford to expend. Fortunately, modern technologies allow even the most remote rural library to have access to information resources far more extensive than what could be housed locally. In addition, through computer-assisted instruction and computer-managed instruction, the efforts of local teachers and volunteers can be greatly expanded at a tolerable cost (Venezky & Osin, 1991). With recent improvements in optical scanning and voice synthesis, computer-based reading tutors can be designed to Incorporate reading materials tailored for individual students. With increased miniaturization, hand-held devices for teaching reading are possible. All of these technologies are currently available and many libraries are already using them to access remote catalogues and databases and to teach reading and other adult level skills.

A funding program similar to the National Science Foundation's college and university computer acquisition program of the 1960's is needed to prepare libraries for a greatly expanded role in literacy instruction. Every library in America should have access to national computer information networks and every library should have advanced workstations for computer-assisted instruction and computer-managed instruction.

LIBRARIES AND ELEMENTARY AND SECONDARY READING

Libraries are also important for promoting literacy at the primary and secondary school levels. Although I suspect that others will testify to these roles, I wish to add just a few notes on this topic. The most obvious role that libraries play in promoting literacy at these levels is in support of the school literacy programs—summer reading programs and the like. These are important activities and they deserve adequate funding. There is a more subtle role, however, that libraries can play and this is in providing a wide range of reading materials, particularly for young males. For a variety of reasons, the elementary and secondary language arts programs are strongly oriented toward narrative fiction reading materials—materials which females more than males enjoy.

Studies of reading acquisition in the United States show that girls tend to do better than boys in reading through at least the sixth grade. In addition, a significantly higher percentage of boys than girls each year are classed as reading retarded or dyslexic. However, this pattern of sex differences does not hold up across industrialized nations. In Germany, more girls than boys have trouble in reading; in England no consistent differences are found between boys and girls (Gibson & Levin, 1975). Surveys of reader preferences done by the National Assessment of Educational Programs show wide differences in reading preferences across school age males and females. One reason cited for the unusually large percentage of males who are classed as backwards or slow readers relates to this lack of satisfactory reading materials in the school reading curriculum.

Although sex differences in reading acquisition probably result from a variety of causes, libraries can help overcome this problem by maintaining collections of materials that will appeal to both males and females—sports, science, mystery, biography, fix-it, and travel materials as well as fiction. Where to many young males the classroom reading program is uninteresting and alien, the local public library is a potential source of friendly and compatible materials.

Federal funding for acquisitions could be earmarked for materials that would appeal to all types of young readers.

SUMMARY

Libraries are an integral part of the literacy service network, serving primarily as a first step for those with low literacy skills and often also with low self esteem. Libraries are non-threatening locales for adults who are unsure how others might react to their limited literacy abilities. If the President's literacy goals for the year 2000 are to be met, then the entire service delivery network for literacy will need to expand dramatically and libraries will need to take on an equal share of this expansion. Library services for literacy, library holdings of high interest/low vocabulary materials, and appropriate technologies will all need increased federal funding.

In return, library literacy programs should be evaluated not only in terms of individual learning, but also in terms of the extent to which the graduates of these programs engage in continuing education. Although some individuals who participate in library (and other) tutoring programs have limited goals: read the Bible or simple stories to their children, the primary justification for increased spending on library literacy programs is the role that libraries can play in preparing adults for more advanced programs through which better jobs, more effective parenting, and fuller participation in civic affairs can result. In my opinion, America's public libraries are ready and willing to assume this role in striving for the President's literacy goals for the year 2000.

Senator **PELL**. Dr. Vinton Cerf, vice president, Corporation for National Research Initiatives.

Mr. Cerf.

Mr. **CERF**. Good morning, Senator Pell, Congressman Williams. I appreciate this opportunity to address you this morning.

My name is Vinton Cerf, and I am vice president of the Corporation for National Research Initiatives, a nonprofit research and development activity in Reston, VA.

My observations this morning are personal, and they are rather technocentric, so I'll take responsibility for them; no one else would probably want to agree.

I'd like to make six points this morning. First of all, I would like to observe that the confluence of computer and communications technology, although it seems to be a cliche, is quite real. It is just like the fellow who says, "I might be paranoid, but that doesn't mean they're not after me." In fact indeed there is a confluence of these technologies, and this confluence is very critical for our next decade.

The second observation is that computers are very powerful individual enablers. Anywhere from PCs to supercomputers, we understand that some of the applications empower individuals. You know some of these applications from your own personal experience no doubt—spreadsheets, desktop publishing, word processing, visualization and simulation, and supercomputer applications. These are all examples of capabilities that we have been able to make available by means of computer technology.

The third point is that computers are tools for creating knowledge, particularly if the information is in a form that a computer can manipulate. But there is an implication of this. If we create knowledge with the computers, it does not good unless it can be communicated somewhere else. So there is per force a need for communication networking technology to link various conferences together.

There is also another implication, namely, that the recipient undoubtedly needs to have a computer in order to make sense of what has been produced. So we now discover that these two technologies have a destiny together.

The fourth point I want to make is about various trends and observations that we can see in the information world today. One of them is that we are buried in information. There is more information about information that is on-line—bibliographic information, databases and the like. You will find a sample of them across the street.

There is also more information on-line, and that is a good thing because if you know about its existence through the bibliographic database, it increases your appetite to have the real thing. But there is a lot of it, and there is more coming. It is distributed in many different networks, on many different databases. It is hard to find.

We need standard data representations. That is critical for information sharing. Unless we have a common language between the computers, it won't be possible for them to share the results of the computations. And we clearly need to apply the techniques of library and information science in order to manage all this computer-generated stuff.

There are some potential roles for the Federal Government in all of this, and I'd like to suggest a few. First of all, you can leverage the private sector. For example, you can fund applications development and pilot studies, and in fact the Government is doing that in the high-performance computer and communications program. You can do a very powerful thing in the way of making public domain software available. It has been a very powerful development tool in the computer communications industry. The Government has sponsored the development of software which is available in the public domain; the public sector has taken that up and turned it into products and services. Some micro systems, for example, of Sysco systems, rapidly growing companies out in Silicon Valley, have taken advantage of the Government's stimulation in this way.

Another thing the Government do is to subsidize the use of some of these technologies initially in order to establish that there is a market. The Government has done that in the past in other areas. Once the market has been established, it is possible for private industry to pick that up and do something with that.

The sixth point I want to make has to do with productivity—where will the gains come from? Well, computers have created the information explosion, but the seeds of managing that information explosion lie within the machines. I'll give you one simple example. The connection machine is capable of going through 100,000 documents in one second. If we can apply that capability to other information problems, that will help.

What we really need is to create what we call an information infrastructure, a sort of knowledge super-highway, that is capable of linking all these various people and machines together. In a sense, it is an opportunity to make a great equalizer in this country. Rural America, for example, can become a new knowledge resource once such an infrastructure is in place because there is no geographic preference anymore to where information is or how it is obtained. Maybe it is time for a "Rural Information Act."

So I would conclude by observing that the United States is technically prepared to create such an information infrastructure, but only the Government can move us down that path on a national scale.

Thank you very much.

Mr. **Williams**. Thank you.

[The prepared statement of Mr. Cerf follows:]

PREPARED STATEMENT OF MR. CERF

IMPACT OF LIBRARY AND INFORMATION SCIENCE ON PRODUCTIVITY IN THE UNITED STATES

INTRODUCTION

Senator Pell, Senator Kassebaum, Representative Williams and Representative Boukema, distinguished subcommittee members, participants and guests, I am grateful for the opportunity to address these brief remarks to you during the second White House Conference on Library and Information Services. My comments reflect personal opinion and are not necessarily representative of organizations with which I am affiliated. These views have been formed, however, in the context of several groups with which I am involved.

As a vice president of the Corporation for National Research Initiatives (CNRI), a not-for-profit research organization based in Reston, VA, I have been able to observe at close hand many of the national technical initiatives which I believe will be key factors in the creation of a national information infrastructure By this I mean the collection of technologies, products and services upon which computer-based information exchange systems can be constructed. One of the CNRI projects relevant to this testimony is a National Digital Library System through which we are exploring frameworks for organizing our nation's information resources to form a rich and powerful, national knowledge processing environment. I have been connected with the Internet, an international system of some 5,000 computer networks, since its inception as a Government-supported research program. I currently serve as the Chairman of the Internet Activities Board (IAB) which is responsible for guiding the technical evolution of this system. I recently completed a four year term as Chairman of the Special Interest Group on Computer Communications (SIGCOMM) of the Association for Computer Machinery (ACM). My remarks are intended to reflect technical opportunities for national scale efforts, not to endorse any particular legislation or course of action.

It is especially timely for this hearing to take place during the Second White House Conference on Library and Information Services. This is an extraordinary period in the history of computer and communications. The confluence of these technologies in the marketplace, in our educational and research institutions and in our homes has created a fertile ground which, like the annual flood along the Nile in ancient Egypt, holds the productive future of our nation. Like the dark loam of the flood plain, computer and communications technology awaits the seeds of new products and services which, in the proper climate, can become a new economic resource and fuel an economic engine affecting more than half of all the activities contributing to our Gross National Product.

There can be little doubt that the rapid decline in cost and increase in performance of all classes of computers, but most especially, personal computers (kneetops, desktops, laptops, notebook, palmtops . . .) has contributed in a material way to individual productivity in knowledge work. These seemingly ubiquitous machines have empowered and enabled individuals to carry out complex computations (e.g. through spreadsheets) which required whole departments of specially trained staff only a decade ago. Desktop publishing tools have made it possible for one individual to produce professionally printed material which once required the work of many individuals and perhaps even organizations to accomplish. Laboratory instruments are becoming increasingly automated, supporting much more ambitious and complex experiments. Supercomputer systems permit the simulation and visualization of processes so complex that heretofore they could be only dimly understood and appreciated.

Despite the frequently irascible, frustrating and narrow-minded character of today's software tools, computers have become an integral component of the work of significant fraction of the national population. Systems are even beginning to appear in the educational infrastructure as more than curiosities, but there is still a long way to go to make computer-based educational applications a serious part of our national curriculum. It should not be a surprise to find that as more of the work product of our population emerges with computer assistance, it is increasingly important to communicate and to retain this work product in a form which is accessible to computers. Our needs do not stop with mere accessibility. Computer-produced information needs to be organized in a coherent way and machines that work with it must be able to interact and exchange this information easily.

These predictable and naturally-occurring needs have stimulated significant investment by the U.S. Government and the private sector in computer communications technology development and service provision. Where there is more than one computer, there needs to be a network to link them and the networks need to interconnect to provide paths between our computer-based tools so that their work product can be transmitted, stored, retrieved, re-analyzed, shared, sorted, indexed and cataloged for our own benefit and the benefit of colleagues, some of whom may only arrive in the distant future and interact with information provided, in their perception, by colleagues in the distant past.

IMPORTANT TRENDS IN INFORMATION TECHNOLOGY

A number of trends may be discerned as computer and communication technologies are fashioned into applications. The first is a strong move towards making information about information more accessible on-line. By this, I mean to suggest catalogs, indices, bibliographic databases, lexicons and self-describing databases and systems. By on-line I mean accessible by computer. This need not imply that the information is accessed by a network. A high-density optical disk (Compact Disk-Read-Only Memory or CD-ROM) is a good example of a computer-accessible, on-line source of information. The important point is that information consumers (researchers, businessmen, librarians, and John Q. Public) have an option to turn computer cycles loose searching for information of interest to them because much of it is cataloged and indexed in a machine-accessible form.

The second trend is an intensely increasing interest in the provision of primary information in machine-usable form. Merely discovering the information in a bibliographic database does not satisfy the need: the referenced material itself is the next natural step in the progression of machine-accessible information. This is important on two grounds:

(1) It makes possible computer searches through the source material in lieu of manual ones.

(2) The resulting information can be used with the individual empowering tools we are growing accustomed to using in our day-to-day work.

Since it is very unusual for all the information needed for one's work to be found in one single, gigantic database or even in the databases of a single supplier, the third trend is apparent: provision of bibliographic or full-content information by means of a network. This trend merely emphasizes what we already know to be true: our information needs are satisfied by many, geographically-dispersed sources and to reach them, via our computers, we need fast, ubiquitous data networks.

A fourth trend, which is far from bearing fruit, is the widespread recognition that standards for the computer-based representation of common types of information are critical to our successful tapping of the potential of computers and communications technology for our information needs. There are still far too many different ways of organizing and representing information to have a reliable base for an information infrastructure.

A fifth trend is the slowly spreading recognition that the tools we need to organize our information resources need to work seamlessly across personal information (e.g. electronic mail archive, personal digital library), corporate information and national information (such as the National Library of Medicine MEDLARS databases, the census databases, Library of Congress resources, private sector commercial databases). The implications are profound. Our tools must work successfully with an countless collection of databases each independently managed and geographically dispersed. A number of experiments and pilots are underway in the research community and in the private sector seeking to bring together these diverse threads and to weave from them a seamless information tapestry accessible to all.

A Role for Government

In virtually every national infrastructure (e.g., National Highway System, power generation and distribution system, telephone system, air transport system . . .), the government (local, state and federal) has played some critical role. In the information technologies, one of the most powerful contributions made by the federal government has been the long-term, stable funding of computer networking initiatives and support for the development of public-domain software for use in networked environments. When DARFA funded the development of a paged, virtual-memory version of the UNIX operating system (AT&T) by the University of California, Berkeley and made this software available to any interested parties, the confluence of this software, local area networking and workstation computer systems ignited a networking explosion. Together with investments made by the National Science Foundation in its NSFNET and related regional networks, the National Aeronautics and Space Administration and Department of Energy in their networks, along with key private sector product and service offerings, these investments have resulted in a global Internet system operated on a collaborative basis by government, the private sector and academia in 33 countries comprising over 5,000 networks, over 350,000 computer systems and over 3 million users.

Assuming that the Government continues to invest in basic information technology research and development, it can make two additional crucial investments:

(1) Support for the development of new computer-based applications stressing information interoperability and coherence in many areas of interest in research and education, the results of which are made widely available to users, product and service developers and which can also be delivered over a national network.

(2) Subsidies, where needed, to consumers of computer-based applications (e.g. researchers, educators and the nation's libraries).

The former investments can have private sector multiplying effects of staggering proportions. Where there is a business opportunity, the private sector will invest, but often the government can provide the nucleus around which private investment may coalesce. Network subsidies can take many forms from direct subsidy of the purchase of networking services to the direct provision of network services to particular constituencies. In my opinion, the strongest benefits will be obtained by demonstrating to the private sector that a market exists for new computer and network-based products and services, then supporting acquisition of the private sector offerings. This works especially well if the products and services in question are of interest to the general public (residential citizens as well as businesses), since the public vastly outspends the federal expenditures in research and education and provides an economy of scale not otherwise obtainable. These are critical considerations if information technologies are to become readily accessible to the general public. Nothing could be more damaging to our national interest than to create enclaves of empowered individuals while the general populace downs in a sea of unprocessible information.

The Federal Government has already made a major commitment in the form of the High Performance Computing and Communication program endorsed by the Administration and the Congress. For this effort to bear fruit, serious attention to new applications is essential. Pilot efforts, experimental testbeds, construction of a variety of digital libraries and other on-line information resources are all potentially helpful in fulfilling the objectives of the National Research and Education Network.

With regard to policy, the Government can harness the interests of the private sector by establishing conditions under which privately developed information products and services can be accessed through the National -search and Education Network. Support for the interconnection of the nation's library resources through the NREN is another important example of an enabling step that the Government could take.

Opportunities do not leave off with Federal initiatives. The states are the principal funders of the national educational infrastructure and have a major role to play in the introduction of information technologies into our educational curriculum. Working with local governments, a combined state and Federal campaign to inject these new technologies into education, into our libraries and the mechanisms of government could have a major impact on the rate at which our national information infrastructure can evolve.

To assure that the development of such an infrastructure proceeds as effectively in rural America as it can in our urban business and population centers, it may be timely for the Federal Government to consider sponsoring a Rural Information Act comparable in its vision and impact to the Rural Electrification Act nearly sixty years ago. The REA brought electrical power and communication to our rural communities. A Rural Information Act could erase geographical differences in information readiness across the continent and create a new national knowledge working resource for the country. Clearly, such an effort could only succeed if it were to move in parallel with new education initiatives which are aimed at erasing geographical distinctions in educational levels across the country. The President's America 2000 program, with its strong grass-roots components would appear to complement a national effort to make our entire population information-ready. It seems equally plain that our nation's schools and libraries can serve as focal points in the introduction of new information technology to the general population. We need to link all of our schools, libraries, government organizations and businesses in a seamless information web, harnessing at once the power of our computer resources and the ubiquity of our telecommunications system.

PRODUCTIVITY

Where will productivity gains come from? From the perspective of the research community, we are being buried in information, much of it produced in great quantity and detail through application of increasingly powerful computer-based tools. The only tools that have any chance of coping with this massive influx of undigested knowledge are the same kinds of tools that help us produce the information in the first place: computers (and networks to link them). The same tools that help us produce and find relevant information can also help us apply it.

The United States has proven that it is very good at creating computer-based tools. We now use these tools to create massive amounts of information and we need to apply the methods of library and information science to organize and utilize it. Special-purpose computers and programming methods (e.g. highly parallel computers and object-oriented programming systems) promise significant productivity gains in the creation of new, information processing tools. We must learn how to apply them in the networked environments of the new century.

Unlike people, who can do only a few things at a time and cannot work twenty-four hours a day (for long, anyway), computers can be programmed to do thousands of simultaneous tasks and can work without pause. For many classes of knowledge work, especially sifting through great masses of text or numbers, we can trade our scarce human brain power ("wetware") for vast quantities of computer power. None of this is trivial to accomplish. The information to be examined by computer has to be in an accessible form. It must be relatively easy for a person to specify what it is that the computer is to do with the information. Standards are needed for the representation of information generated and exchanged between computers. In short, we must create a national, computer-based information infrastructure if we are to unlock the productivity gains trapped inside great masses of information stored in millions of distributed databases large and small.

At the Corporation for National Research Initiatives (CNRI), we have been experimenting with a new kind of computer program we call a Knowledge Robot (or Knowbot, CNRI). These are programs which can move from machine to machine in a network, for knowledge in an information landscape littered with data in myriad forms. The task of these Knowbot programs would be made vastly easier if the information could be represented in a few standards ways. It is too early to tell whether it is feasible to define such standards, but the only way to find out is to build some real examples. Many other workers in this general domain are carrying out similar experiments using various kinds of information and focused on various specific applications (astronomy, climate dynamics, DNA sequences, molecular models, neural circuitry databases, economic data, computer chip design databases, and so on). It is hoped that these experiments will yield insights from which some generalizations can be made so that common information structures can be defined.

CONCLUSION

If it proves possible to create an information infrastructure, an economic and social engine of considerable magnitude will result. Computer-based applications will naturally exchange information without the need for myriad bilateral technical agreements; a very low barrier to the creation of new products and services will have been established since the infrastructure will deal with the ubiquitous and affordable delivery of information, registration of products and services in on-line, machine-accessible directories; and the nation's information resources will be linked with our business and educational enterprises in a way which erases many geographical disparities in opportunities and opens up new human potential in all parts of our society.

Mr. **Williams**. Our next witness is Dr. Timothy Healy, president of New York Public Library, late president of Georgetown University.

Tim, I don't know if you are too busy or I am, but you haven't dropped by in a while; I haven't seen you. How come?

Reverend **Healy**. If you haven't heard of the budget crisis in New York City, Mr. Williams, you must be the only American who hasn't. [Laughter.]

Mr. **Williams**. Well, our budget crisis here is so loud, we're deaf to all others, I think, Tim. It is nice to see you now, Father. Please proceed.

Reverend **Healy**. It is nice to be back, Senator, Mr. Williams.

Before Mr. Williams has to go vote, can I answer that question you asked the last speaker on the first panel—what I would like to see come out of this. By some sort of Federal magic, what I'd like to see come out of it is the kind of structure that will get librarians' salaries at least up to where teachers' are. [Applause.] They have the same qualifications, and they work just as long hours, have no summer vacations, and are substantially below what teachers are paid.

I'd like to say thanks for the privilege of testifying this morning. I want to talk about one part of the library world and only one part, and that is the Nation's great research libraries, which are so important to preserving democratic institutions in the United States and in the increasingly important labor of exporting the dreams and hopes and ideas of democracy to the rest of the world.

American political life is really a 200-year dialogue, a conversation between the two strands that made us. On the one hand is the logical voice of James Madison—and by the way, as a New Yorker, let me add Alexander Hamilton. The pair of them turned the ancient Christian and Jewish notion of original sin into what the Federal Government calls "the balance of power." [Laughter.]

On the other hand is the more revolutionary voice of Thomas Jefferson, who reminds us that the tree of liberty must at times be watered with the blood of patriots. The debate between them, at times strident and sometimes violent, has guided the Nation ever since its beginning.

It is principally in the Nation's great libraries that that dialogue of 205 years is kept alive, made available to each succeeding generation, and by that simple fact, these institutions root each generation in the democratic consensus that makes us one.

The beginning of the cure for religious bigotry, ethnic intolerance and racism that so often divide our people is always and only knowledge, and this we routinely offer. The recent anti-Catholic remarks by the Governor of Virginia are a good example of how ignorance can be hurtful.

Another level of our work, deeper but no less successful, issues in scholarly public statements like the magnificent television series on the Civil War—an achievement literally unimaginable without the support of dozens of great libraries throughout the Nation, two of which are talking to you this morning.

When Thomas Jefferson left the Presidency he wrote to John Adams that he was relieved to be rid of the administrative duties, but that he was most happy to shed from his shoulders the responsibility for "the only Republican form of government on the face of the earth."

Look what has happened in less than two centuries. The ideas and dreams of democracy cover the face of that earth. Sometimes, as in the liberation of a great continent to the south of us, the rhythms of that spreads were swift and agitated. At other times, for long years, they seemed to drag. At the end of our century, democracy is spreading literally like wildfire. liberating a great slave empire which 25 years ago looked as impregnable by freedom as China does today. If ever there was a time when our historic export of democratic ideas was needed, it is now.

Our problem is that we are systematically weakening the scholarly base of that world-shaking export. Sharp inflation in the price of books and periodicals, joined to a pattern of restricted budgets in the Nation's great universities, and accompanied by a decline in the value of the dollar itself, have made it increasingly difficult for the Nation's research libraries to purchase, catalog and make available materials of foreign origin and language on which our scholarship increasingly depends.

The research library is the engine room of advanced study, as it is indeed the throbbing heart of a university. What has happened is simple enough. Twenty-five years ago, 80 percent of what scholars needed for research was published in the United States. Now that figure is barely 60 percent and steadily going down. Increasingly, American research needs foreign materials, many of them published in languages other than English.

While American universities and scholarly centers need more and more foreign books and materials, our capacity to acquire them is dwindling. With it will go the leadership role of American scholarship. Once we have lost it—and that is only about 20 years away—getting it back will be expensive and perhaps impossible.

The solution is not single, but there are some obvious steps, and some of the machinery to take them is already in place. Some eight to ten research libraries in the United States buy over 100,000 foreign serials a year. If Government support were available to each of them in small amounts, it would be easy to work with the Department of Education to avoid unneeded duplication in these foreign purchases.

In addition, working with the department, all of them could guarantee to catalog and make such Federally-funded items available to users all over the Nation, particularly to all other university and research libraries.

American has been, at least since the Second World War, the scholarly capitol of the world. Very few of our exports have not been hurt by our trade gap, but this is one that hasn't, our stream of superbly trained young professionals and specialists. Our training also involves them personally, in a close experience of democratic Government, democratic institutions and a democratic people. That adds to the value of what we ship out.

It would be high folly now were we to put that eminence at risk, and factors beyond the control of any university or research library are already putting it very much at risk. For its own sake and for the sake of the rest of the world, America needs to retain its outstanding chain of great research library centers. A very small investment now could guarantee that eminence for the foreseeable future.

Thank you very much for listening.

Mr. WILLIAMS. Thank you very much.

[The prepared statement of Reverend Healy follows:]

PREPARED STATEMENT OF REVEREND HEALY

INTRODUCTION

Timothy S. Healy, the President of The New York Public Library, was born in New York City in 1923. After graduating from Regis High School in 1940, he earned degrees from Woodstock College; the Faculties Saint Albert in Louvain, Belgium; Fordham University; and Oxford University where he received his doctorate in English literature.

Dr. Healy began his career in education by teaching English and Latin at Fordham Preparatory School, becoming an English professor at Fordham University in 1955. In addition to his teaching responsibilities, he served as Fordham's Director of Alumni Relations from 1955 to 1962 and as Executive Vice President until 1969. From 1969 to 1976 he was Vice Chancellor for Academic Affairs and Professor of English at The City University of New York. In 1974, while on temporary leave from CUNY, he served as Special Assistant to the Chancellor of the State University of New York for the planning of a State Prison College. He became President of Georgetown University in 1976.

During Dr. Healy's 13-year tenure at Georgetown, the University's endowment rose from $38 million to $225 million, the budget increased from $112 million to in excess of $500 million, and the number of student applications doubled. All the while, he taught English to students, lectured across the country about higher education, and wrote articles on a vast range of topical subjects. A first-rate scholar and administrator, Dr. Healy throughout his life has championed the causes of academic freedom and individual civil rights.

His myriad publications include two books, John Donne: Selected Prose (edited with Dame Helen Gardner); and John Donne: Ignatius His Conclave, both published by the Clarendon Press, Oxford. His articles have appeared in such media as The New York Times, The Chronicle of Higher Education, The London Times, The Los Angeles Times, The Washington Post, Rheinischer Merkur, America, Daedalus, New Republic, Newsweek, and The Saturday Review.

Dr. Healy serves as a member of the NCAA President's Commission, and the American Academy of Poets Board of Directors, to name a few. He is a trustee of Fordham University, The Literacy Assistance Center, Regis High School, and Covenant House. He has served as a Director and Chairman of the American Council on Education and the National Association of Independent Colleges and Universities and has been Chairman of the National Advisory Committee on Accreditation and Institutional Eligibility. Previous memberships include the Folger Library Committee, the President's Commission on Foreign Language and International Studies, the Middle States Commission on Higher Education, and the Secretary of State's Advisory Committee on South Africa.

A Fellow of St. Cross College, Oxford, Dr. Healy also has held fellowships from the Danforth Foundation, the American Philosophical Society, and the American Council of Learned Societies.

THE NEW YORK PUBLIC LIBRARY
New York, NY, July 11, 1991

This morning I want to limit my remarks to one kind of library, and to an important contribution that kind of library makes to democracy, not only in the United States but throughout the world. My own base is the New York Public Library, the great center at 42nd street, the Library for the Performing Arts at Lincoln Center, and the Schomburg Center for Black Culture in Harlem. The three are a world class research library, but with a special democratic grace; like the Library of Congress and unlike America's great university libraries, the charter of the New York Public

Library says that its treasures are "for the free use of all the people," and this they have been for almost 100 years.

In everything I say this morning I want to talk about the place of research libraries not only in the long internal struggle to preserve democratic institutions in the United States, but in the increasingly important labor to export the dreams, ideas, and hopes of democracy to the rest of the world.

American political life is a 200 year-old conversation between the two great strands that shaped this nation at the end of the 18th Century. On one hand is the logical voice of James Madison that turned the ancient Jewish and Christian nation of original sin into our Federal government's balance of power. On the other hand is the revolutionary voice of Thomas Jefferson, reminding all of us that the Tree of Liberty must at times be watered with the blood of patriots. The debate between them, at times strident and even violent, has guided the Nation ever since its beginnings.

The nation's great libraries keep alive 205 years of that dialogue, make it available to each succeeding generation, and by that simple fact root each generation in the democratic consensus that makes us one. The beginning of the cure for the religious bigotry ethnic intolerance and racism at so often divide our people is always and only knowledge, and this we routinely offer. Another level of our work, deeper but no less successful, issues in scholarly public statements like the magnificent television series on the Civil War; an achievement unimaginable without the support of dozens of great libraries throughout the nation.

When Thomas Jefferson left the Presidency in 1809, he wrote to John Adams that he was relieved to be rid of his administrative duties, but above all that he was happy to shed the responsibility for "the only Republican form of government on the face of the earth." In the less than two centuries since that remark, look what has happened. The ideas and dreams of democracy have covered the face of the earth. Sometimes, as in the liberation of the great continent to the south of us, the rhythms of that spread were swift and agitated. At other times they dragged and seemed almost not to work. At the end of our century, democracy is spreading literally like wildfire, liberating a great slave empire which 25 years ago looked as impregnable by freedom as China remains today. If ever there was a time when our historic export of democratic ideas was needed, it is now.

Our problem is that we are now systematically weakening the scholarly base of that world-shaking export. Sharp inflation in the price of books and periodicals, joined to a pattern of restricted budgets in the Nation's great universities, and accompanied by a decline in the value of the dollar itself, have made it increasingly difficult for the Nation's research libraries to purchase, catalog and make available materials of foreign origin and language on which our scholarship increasingly depends.

The research library is the engine room of advanced study, as it is indeed the throbbing heart of any university. What has happened is simple enough. Twenty-five years ago 80 percent of what scholars needed for research was published in the United States. Now that figure is barely 60 percent and it is steadily going down. Increasingly American research needs foreign materials, many of them published in languages other than English.

While American universities and scholarly centers need more and more foreign books and serials, our capacity to acquire them is dwindling fast. With it will go the leadership role of American scholarship. Once we have lost it, and that's only twenty years away, getting it back will be expensive and, perhaps, impossible.

The solution is obvious, and indeed some of the machinery for it is already in place. Some eight to ten research libraries in the United States buy over 100,000 foreign serials a year. If government support were available to each of them in small amounts, seldom more than a million for any individual library, it would be easy for them to work with the Department of Education to avoid unneeded duplications in their foreign purchases. In addition, working with the Department, all of them could guarantee to catalog and make such Federally funded items available to users all over the nation, above all to all other university and research libraries.

America has been, at least since the second World War, the scholarly capital of the world. Few of our exports over the last forty years have been unhindered by our trade gaps, but one is our stream of superbly trained young professionals and specialists. Our training also involves them in a close experience of democratic government and democratic institutions, which adds to the value of our export. It would be high folly now were we to put that eminence at risk, and factors beyond the control of any university or any research library are already putting it very much at risk. For its own sake and for the sake of the test of the world, America needs to retain its outstanding chain of great research libraries. A very small investment now could guarantee that eminence for the foreseeable future.

Mr. **Williams**. Our next witness is Dr. James Billington, who needs no introduction particularly to this group of people or to any Members of the House or Senate.

Dr. Billington, we are delighted you are with us. Please proceed.

Mr. **Billington**. Thank you, Mr. Williams and Senator Pell.

It is a great privilege to be here today, and I would just begin by seconding the wise words and linkage between knowledge of the outside world and effective functioning of democracy in the millennium we are entering that Tim Healy has just so eloquently put forward. This country was made rich by immigration. It will survive by the immigration of ideas. And without it, if that is cut off, we will be deeply impoverished spiritually, and we will lose our competitive edge economically.

Mr. Chairman, the United States has long promoted the international exchange of information and has empowered its national library, the Library of Congress, to engage actively in international exchange and the promotion of overseas cultural exchange, going back to 1840, when the joint congressional committee said, "It is very desirable that we should have within the reach of Congress as minute a knowledge as authentic records can furnish in regard to foreign governments," and when the committee decided that the Library of Congress should become the U.S. Government's agent for the international exchange of official Government information.

Subsequent laws and treaties have enhanced this valuable exchange, and today the Library of Congress receives over 500,000 items annually from 15,000 exchange partners which has to be one of the richest international exchanges in the world.

These publications are invaluable to the Congress, the Government, and scholars. Just to take three examples, during the Persian Gulf War, having the world's largest comprehensive Middle East library meant that briefings on details of the Code of Kuwait and all kinds of other things were available to congressional committees and the Department of Defense. When Khomeini came to power, because we collect ephemera of groups out of power as well as governments in power, the Library of Congress had the largest available collection of what he had to say; and when the Soviet Union invaded Afghanistan, because we have the largest map collection in the world, we had the most up-to-date available maps of downtown Kabul.

Moreover, because of its world-wide acquisitions and cataloging program, the Library of Congress had helped facilitate the acquisition of foreign materials for libraries across the country. We acquire and catalog through our overseas offices publications from 60 countries in Africa, Asia and Latin America for the library and for 71 university and research libraries which participate in the program, and we also publish accession lists of hard-to-acquire materials for those countries in which we have offices, and we distribute them to over 1,000 libraries.

Nearly three-quarters of the Library of Congress collections are in foreign languages, and it is estimated that 60 percent of acquisition budgets for major American research institutions are spent acquiring foreign materials. As has been pointed out, these have become much more expensive, and more effort needs to be made to obtain hard-to-get materials so that scholars can have rapid, in-depth information on a variety of subjects, notably scientific and technical literature.

If the U.S. is to remain a dynamic, competitive Nation, we need to place far more emphasis on research-based area studies within our schools and universities. The right library resources are essential for area studies, and we must insist on foreign language requirements in our secondary schools and in our colleges and universities.

New technologies require that the U.S. Government be a leader in international standard-setting, also. Supercomputers and international networks require standards if we are to exchange information rapidly and efficiently. The Library of Congress has had a major role in standard-setting and development of the international standard known as UNIMARC is similar to the Library of Congress' cataloging standard, which is the U.S. standard. So I hope we can continue to work with the international standards community to strengthen and promote the exchange of information.

Information-rich countries led by the United States must also work with less-developed countries to build the information networks of the future that will be vital to their survival and to their open democratic development. Congress itself has taken a leadership role in providing information resources to developing parliamentary institutions in Eastern Europe through the "Gift of Democracy" and a congressional task force appointed by the Speaker. Hungary, Poland and Czechoslovakia are now receiving such assistance, with the library and the Congressional Research Service taking the lead.

A core bibliography for parliamentary libraries, which are developing in a hearteningly rapid way, has been developed by the Library of Congress, and over 800 titles for the library's exchange and gift division have been sent to these three countries and also to Bulgaria. The first shipment to Czechoslovakia of supplementary reference books, just 78 of them, represented more Western titles than the Czechs had acquired in the previous 20 years.

This is one example that highlights of the importance of knowledge to the growth of democratic institutions, and the need for foreign area specialists with fluent language competence along with this is a need for U.S. commitment to cultural and professional exchanges.

A recent new direction in our intern program, which traditionally includes outstanding U.S. library school graduates, has been the introduction of interns from foreign libraries. We have had them from Iceland, Japan, Swaziland, and are looking forward to China, Nigeria, Yugoslavia and others.

Also, in terms of the importance to free society of intellectual property and protecting it and encouraging its creativity, the library's copyright office set up under the Congress' leadership in 1989 an international copyright institute, which will bring major convening of leading officials from Africa, Latin America and China shortly.

Much of more this education program directed at the importance of international compliance with copyright conventions should be integral to worldwide communications policy development.

Because of the needs also of those individuals who cannot read ordinary print, either in book, periodical or computer form, because of blindness or physical disability, the United States has developed one of the world's most sophisticated and generous reading programs for the blind and physically handicapped. The Library of Congress provides books in Braille, talking books and machines upon which to play them, and the States provide direct services to their residents through local libraries.

The Library of Congress' National Library Service for the Blind and Physically Handicapped has been actively sharing its resources worldwide. It is the founder of a section of Libraries for the Blind in the International Federation of Library Associations and Institutions, and it coordinates international efforts in the area of electronic equipment for reading talking books, interlibrary loans and assistance for the blind and physically handicapped in other parts of the world.

Again, more cooperation is needed if we are to meet the information needs of this special population.

Many of these and other recommendations, Mr. Chairman, seem ambitious, will cost additional Federal funds and other kinds of funding, but I think it would be shortsighted to ignore the looming implications for the economy and for the health of our open, democratic society in the age of information of this area.

These are exciting times for persons engaged in disseminating knowledge and information, but they are also very challenging times. We all speak about libraries without walls and sharing our resources more widely. We have offered our services on-line bibliographically to the State libraries, and we will soon be engaging in full-text transmission through our American Memory Program. There is a wide network and community of people dedicated to doing this, yet doing so will require not only additional resources but a worldwide acknowledgment of our dependence on this information and knowledge and the link between ever evolving and developing knowledge and the health and sanity of a democratic community and a pluralistic world.

Just as the jet airplane has revolutionized how we do business, computers and telecommunications networks, as we have heard from previous speakers, have revolutionized how we are using information and knowledge.

The White House Conference on Libraries and Information Services is an opportune time to put these problems in focus and to move quickly to resolve and to work together on the major issues that face us. My colleagues and I certainly at the Library of Congress, at your library, Mr. Chairman, will be happy to provide what technical expertise we have on other forms of networking as we move toward a world in which we all share information and knowledge resources.

Thank you.

Senator PELL. Thank you very much indeed, Dr. Billington.

[The prepared statement of Mr. Billington follows:]

PREPARED STATEMENT OF MR. BILLINGTON

I appreciate the opportunity to speak today about international library and information services.

The United States has long promoted the international exchange of information and in many ways has enhanced the ability of its national library—the Library of Congress—to engage actively in international exchange and the promotion of cultural exchanges abroad.

As early as 1840, the Joint Congressional Committee on the Library in reporting favorably on LC's becoming the U.S. government agent for the international exchange of official government information stated: "It is very desirable that we should have . . . within the reach of Congress as minute a knowledge as authentic records can furnish in regard to foreign governments." Subsequent laws and treaties have enhanced this valuable exchange of information. Today the Library of Congress receives over 500,000 items annually from 15,000 exchange partners. These publications are invaluable to the Congress, the U.S. government, and scholars. Three pertinent examples are:

> During the Persian Gulf War, Library Near East Legal Specialists, using our Near East legal collections for Saudia Arabia and Kuwait, briefed Congressional Committees, translated into English portions of the Code of Kuwait and consulted frequently with Department of Defense officials; when the U.S.S.R. invaded Afghanistan, the Library had the most up-to-date map of downtown Kabul available in the U.S.; and when U.S. troops were engaged in Burma during World War II, information in the collections on rainfall in Burma was vital to the War Department.

Moreover, because of its world-wide acquisitions and cataloging programs, the Library of Congress has helped facilitate the acquisition of foreign materials for libraries across this country. We acquire and catalog through our overseas offices publications from 60 countries in Africa, Asia, and Latin America for the Library and for 71 university and research libraries which participate in this program. We also publish accession list of hard-to-acquire materials for those countries in which we have offices and distribute them to over 1,000 libraries. Nearly three quarters of the Library of Congress collections are in foreign languages, and it is estimated that 60 percent of acquisitions budgets for major American research institutions are spent acquiring foreign materials. These efforts are helpful, but more efforts need to be made to obtain hard-to-get materials so that scholars can have rapid in-depth information on a variety of subjects, including recent scientific and technical literature.

If the U.S. is to remain a dynamic, competitive nation, we need also to place far more emphasis on area studies within our schools and universities. The right library resources are essential for area studies. Moreover, we must insist on foreign-language requirements in our secondary schools and in our colleges and universities. World-wide communications networks will not be fully utilized until we improve the language capabilities of America's leaders of tomorrow. Other nations are doing this; there is no reason why we cannot.

New technologies require that the U.S. Government be a leader in international standards setting. Supercomputers and international networks require standards if we are to exchange information rapidly. The international exchange of bibliographic information benefited from the adoption of an international standard known as UNIMARC and the adoption of additional standards for facilitating further international information flow must be realized soon. United States coordination of international standards and international communications policy needs to be strengthened to promote the exchange of information.

And information-rich countries led by the United States must work together to help the less developed countries build information networks vital to their survival.

Congress itself has taken a leadership role in providing information resources to developing parliamentary institutions in Eastern Europe through the Gift of Democracy and a Congressional Task Force appointed by the Speaker. Hungary, Poland, and Czechoslovakia are now receiving such assistance. The Task Force asked the Library and the Congressional Research Service to take the lead. The three areas of assistance are: library and research services; a comprehensive computerization program; and parliamentary training programs. A core bibliography for parliamentary libraries has been developed by LC librarians and over 800 titles from the Library1s Exchange and Gift Division have been sent to these three countries and to Bulgaria. The first shipment to Czechoslovakia of 78 reference books represented more Western titles than the Czechs had acquired in 20 years. Contracts with computer firms and book and periodical vendors have been initiated, and request lists from the East European libraries are being received.

Parliamentary librarians from each of these countries have visited the Library and the Congressional Research Services for a week, attended a meeting of the Special Libraries Association and spent two days in Austin, Texas, to observe information services being provided at the state level.

This is one example that highlights the importance of knowledge to the growth of democratic institutions. Coupled with our need for foreign area specialists with fluent language competencies is a need for U.S. commitment to cultural and professional exchanges. It is important that we as a nation recognize that the development of international information policy requires that our professionals understand foreign cultures and likewise that foreign professionals understand U.S. information policies and problems. These exchanges are even more important to those countries which are information poor.

A recent new direction in the Library of Congress Intern Program, which traditionally includes outstanding U.S. library school graduates, has been the introduction of interns from foreign libraries. This is a small but important contribution to developing expertise in worldwide information technologies. Our June graduating class included participants from Iceland, Japan, and Swaziland. Our September class will include librarians from China, Nigeria, and Yugoslavia. Each participant has an opportunity to observe in-depth the operations of the Library of Congress, visit other government libraries, and have hands-on work experience. For some, this is their first introduction to computerized information networks. More U.S. resources need to be invested in cultural exchanges of this kind.

Resolving issues relating to intellectual property are also paramount to the development of worldwide communication. U.S. copyright industries and U.S. trade negotiators consider piracy of U.S. books, music, films, and software a major barrier to the international exchange of information. In an effort to stem this practice and to improve copyright protection around the world, Congress in 1989 established in the Library8s Copyright Office an International Copyright Institute. Two major seminars are initiated each year. Last year, we had one seminar for French-speaking African officials and one for high level Latin American officials. Next month we will host judges and copyright officials from the Peoples Republic of China and, in October, we will focus on the Soviet Union and Eastern Europe.

Education programs directed at the importance of international compliance with copyright conventions should be integral to worldwide communications policy development.

In developing such a communications policy, it is important to consider the needs of those individuals who cannot read ordinary print—either in book, periodical, or computer form—because of blindness or physical disability. The United States has one of the world's most sophisticated reading programs for the blind and physically handicapped. The Library of Congress provides books in braille and talking books and machines upon which to play them, and the states provide direct services to their residents through local libraries.

The Library's National Library Service for the Blind and Physically Handicapped has been actively involved in efforts to share resources worldwide. It is the founder of a section of Libraries for the Blind in the International Federation of Library Associations and Institutions, and it coordinates international efforts in the area of electronic equipment for reading talking books. Moreover, inter-library loans are made to libraries serving the blind and physically handicapped in all parts of the world. We also assist foreign countries in purchasing audio and braille books; we provide professional assistance to countries which are establishing reading programs; and we produce special materials such as international directories for braille music and tactile maps.

More cooperation is needed if we are to meet the information needs of this special population.

Although many of these recommendations seem ambitious and will cost some additional Federal funds, I think it would be shortsighted to ignore the looming implications of the age of information and what impact it will have on the world in the twenty-first century.

These are exciting times for persons engaged in disseminating knowledge and information, but they are also very challenging times. We all speak of the library without walls and of sharing our resources more widely, yet doing so will require not only additional resources but a worldwide acknowledgment of our dependence on this information and knowledge. Just as the jet airplane has revolutionized how we do business, computers and telecommunications networks have revolutionized how we use information and knowledge. We need to move quickly in resolving some of the major issues that face us. The White House Conference on Libraries and Information Services is an opportune time to put these problems in focus. My colleagues and I at the Library of Congress will be happy to provide what technical expertise we have as we move toward a world in which we all share information and knowledge resources.

Senator **Pell**. Mr. Sobol, we welcome you here and look forward to your testimony.

Mr. **Sobol**. Senator Pell, thank you very much for this opportunity to testify before you today.

I am Tom Sobol, commissioner of education in New York State, and I speak to you this morning as a delegate to the White House Conference on Libraries and Information Services, but also as one who is, like you, concerned with the way we raise and educate our children.

The written testimony I have submitted addresses the Library Services and Construction Act, library-related provisions of the Higher Education Act, and certain technical matters now before you. But right now, I would like to speak more generally.

My theme is that we cannot improve the quality of education we provide our children without linking schools and libraries, and that to do so effectively we need a significant commitment from the Federal Government.

The Nation has become concerned with school reform. We know we must do better if we are to prepare all of our children to meet the same worldclass standards as our global economic competitors. In America 2000, the President has advanced a plan for doing so. His plan contains many features of our own plan in New York State, a plan we call "A New Compact for Learning," but in some ways our new compact goes further.

Like America 2000, the compact calls for school reform and holds school practitioners accountable for achieving the desired results, but it also recognizes that schools can't do it alone; that the question is now only how can we improve the schools, but how can we raise and educate our children better.

We believe it takes the whole village to raise a child and that all the relevant resources of a community, a State and a nation should be marshalled behind children for that purpose—not only teachers and principals, but parents, grandparents, older children, social services and health agencies, community-based organizations, law enforcement, business, the media.

Children do not just learn from 8 a.m. to 3 p.m. on 180 days of the year. They are learning all the time, and you cannot separate what and how they learn from what and how they live.

Now, in the context of the White House Conference, it is important to emphasize the central role of libraries in this larger educative effort. We live in an information age, and the central task of education is to prepare children to access, understand and use this information wisely. For that to happen, the information must be available. We all know what we want in this regard. We want all the learning resources a child might need easily available in every school, every classroom, no more depending on the textbook, the cart of dog-eared paperbacks, the occasional film or videotape or on what the teacher knows.

We want all the accumulated knowledge of our civilization—its print, its art, its music, its film and photography, its databases—accessible by each student. We want each student able to interact with these riches, to use his or her mind to explore, inquire, manipulate, design, imagine, analyze and understand.

We want students to communicate with other minds, not only those closeby, but those across time and across space, including the best minds of our and other societies.

To have these conditions, we must integrate schools with libraries, create networks for sharing resources and information, open electronic pathways, make resources available not only everywhere within States, but across the Nation. We must have universal learning access for a learning society.

Now, all of this is technically possible; it is within our reach. In the long run, it is not even that expensive. But it is not what we have now. What we have now is that the libraries are closing.

In my New York State, where we cannot build prisons fast enough, financial pressures have forced the closing of some public libraries and the reduction of many to providing service only 2 days a week. In our cities and impoverished rural areas, where school libraries are often woefully inadequate, schoolchildren, those same schoolchildren whom we want to be first in the world in math and science by the year 2000, have little or no place to go. Where do you send a child at 3 p.m. when school is out, if the library is closed—to the streets? What do you say to a child when she asks you why the library is locked—that you can't afford to keep it open? Is this what we mean by a learning society? Is this our vision of America in the year 2000?

In New York City last month, we had a wonderful parade. We celebrated victory in the war in the Gulf. And whatever any of us felt about the war, the parade itself was a genuinely stirring occasion. We had a right to be proud because we had exerted our national will, committed massive national resources, and achieved a stunning national triumph. That was Monday.

On Tuesday, I visited branch libraries in Lower Manhattan and in Queens and spoke with librarians about how their clients would manage now that the libraries were closing. I don't want to be among those in charge when they decide to win the wars and close the libraries. And I suspect that you don't, either. [Applause.]

[The prepared statement of Mr. Sobol follows:]

PREPARED STATEMENT OF MR. SOBOL

In New York State and across the nation we have come to understand that our well being in a shrinking world depends upon our capacity to become a learning society. Not only our school children, but people of all ages, backgrounds, and walks of life must acquire the tools and habits of learning throughout a lifetime. America's libraries have an important opportunity to help in meeting this challenge. I appreciate this opportunity, in course of the White House Conference on Library and Information Services, to talk with you about education reform, the ways in which libraries relate to it, and Federal policy and support as we prepare for the 21st century. As you might expect, I shall speak about the Federal Library Services and Construction Act and other legislation which your committees have shaped. But essentially, I will talk of vision, expectations for education and libraries, and how Federal and State cooperation move us into the 21st century.

A VISION OF EDUCATION IN 2000

We decided in the New York Conference on Library and Information Services that on January 1, 2000, only the calendar will change into the new century. Whether we begin a new era depends upon what we think and do.

A new age will begin, however, if people of vision act to make it happen. Let me share my vision, at least in part. My vision is of a society in which everyone participates, to which each person can contribute productively, a country in which each child can take pride in his or her part and can understand and respect the parts of others. My vision is of a system of learning in which all children have the same chance, the same high level of resources available—teachers, schools, libraries, learning technologies. My vision is of an educational system in which it is possible for a child from any background to have the same high expectations for the future as any other child—where any adult can continue to learn at any level and at any age. My vision is of a democratic society that lives up to its promises, and a body politic that lives up to its responsibility of citizenship. Finally, my vision is of a society which values and cultivates the activity of mind, and couples it with the outreach of heart—a learning society, and a caring society. How can we shape that society? And how do libraries and information services fit in that vision?

HOW IDEAS IN BOOKS AND LIBRARIES SHAPE CHANGE

Perhaps we should look back a decade to understand how the present came about—then we can go to work trying to shape the general direction of change, even if we cannot predict its exact form. For example, no prophet, to my knowledge, in 1981 predicted the profound political and economic changes which have swept the world within the past three years.

Global politics have defied the most imaginative political pundit's predictions: the realignment of political alliances; the end of Communist domination in the countries of Eastern Europe, the bloody suppression of the Chinese people's reach for individual freedoms; the end of apartheid in South Africa without revolution, although (alas) not without bloodshed. These events burst upon us as a surprise; but in a sense, we should have known. For underlying all of these changes is the capacity of ideas to seep through the cracks of suppression, of information to slip by the watchdogs of totalitarianism. So we heard students in Tiananmen Square citing our country's founders as they built "Miss Liberty," crowds in Leiphg singing "We Shall Overcome," Nelson Mandela quoting our Constitution, and Polish teachers asking for translations into their own tongue of writings on democracy. That ideas of democracy should have such power may not have been foreseen a decade ago, but Lord Acton would not have been surprised, if one judges from his work at the dawn of this century, *The History of Freedom and Other Essays*. He wrote:

> It was from America that . . . ideas long locked in the breast of solitary thinkers and hidden among Latin folios burst forth like a conqueror upon the world they were destined to transform, under the title of the Rights of Man . . . and the principle gained ground, that a nation can never abandon its fate to an authority it cannot control.

How do ideas, especially ideas of democracy, sneak through all the traps laid to stop them? Information flies through the air with the 20th-century technologies of radio, television, and computers. But ideas still travel best with a 15th-century technology—the printed page; and the handiest, most portable, most speakable format for that page is the book.

All the book needs, beyond a pocket to be carried in, is a person who can read, who wants to read and knows how to find the material he or she wants.

In all of the recently transformed Communist states, people risked a secure—if drab material existence for the goal of free expression of ideas—a free press, access to opposing viewpoints, ability to follow differing beliefs. Where did they get the notion that these principles were important? Largely from books, magazines, and newspapers that got across borders and were passed from hand to hand.

If we are to assure a democratic future for ourselves and our children, we cannot afford a populace easily manipulated by "sound bites," "photo-ops," and the attack of the killer political commercial. We need thoughtful absorbers of ideas, with the ability to test those ideas against competing ones and to draw wisdom from knowledge. We need readers. Real readers. Children and adults who like to use their minds. People who want to know. People who want to think. People who want to make connections between what they are reading and what they've already read, what they've already learned, what they are living. Every real reader is a potential revolutionary—just ask Vaclav Havel. No wonder totalitarian societies don't encourage free and open libraries.

And current technologies provide new potential for libraries to become electronically the repositories of all of the available knowledge anywhere, for information to fly from China to New York, from Baghdad to Washington in ways that governments cannot control or stop; and suppression of information and the dissemination of lies become more and more difficult for any dictatorship. In ways that are very direct, America's investment in libraries and electronic library networks is one of our stronger statements of belief in a free society.

AMERICA 2000 AND NEW YORK'S "NEW COMPACT FOR LEARNING"

What does this vision have to do with America 2000? As the President said in April, "Nothing better defines what we are and what we will become than the education of our children." We share that view and, over more than a year, under the leadership of the Board of Regents, we in New York State, have developed "A New Compact for Learning" that lays out how we propose to improve public elementary, middle, and secondary education results in the 1990's.

We believe that if our young people are to prosper in a world of continuing change, the depth and breadth of their education must vastly exceed anything this nation has thus far achieved. Our Compact embodies many of the points and strategies in the President's initiative: higher expectations and standards, making schools better and more accountable, parent involvement, lifelong learning, and community and business responsibility for helping accomplish change. But first we defined our guiding principles. We have six:

All children can learn. All children are capable of learning and contributing to society. No child should be allowed to fail.

Focus on results. Our mission is not to keep school—it is to see that children learn. The energies of all participants should be focused on achieving the desired outcomes. The essence of accountability is found in results.

Aim for mastery. Successful participation society much more than minimum competency. The curriculum, instructional methods and adult expectations must challenge students to perform at their best.

Provide the means. Every child is entitled to the resources necessary to provide a sound, basic education. The requirement is not equality of input, but equity of' outcome.

Provide authority with accountability. Each participant in the educational system should have the authority to discharge effectively his or her responsibility, and each participant should be held accountable for achieving the desired results. This principle applies to all the participants—students, parents, teachers, counselors, librarians, administrations, Board of Education members, others.

Reward success and remedy failure. The existing system tends to reward those who make no waves. The times demand a System which rewards those who take risks to produce results. Occasional failure in a large and diverse system is probably unavoidable. But failure should not be permitted to persist When it occurs, with either individuals or groups, help should be provided and the situation changed.

The essence of The New Compact is that the schools, alone, cannot accomplish the educational job we need. "It takes the whole village to raise a child," and the New Compact sets out the responsibilities of all the education players—from State and local officials and educators to libraries, higher education, community organizations, business, industry and labor. Those of libraries represent both the challenge and the opportunity of libraries in education reform.

RESPONSIBILITIES OF LIBRARIES

Never before have libraries been so important to the future of our country and to our educational system. Rather than absorb masses of information that becomes outdated tomorrow, the children in our schools today must learn information and communication skills that will serve them as lifelong learners. To become such learners they must learn now to find, evaluate, analyze, and synthesize information. Libraries are the laboratories for learning these skills. They offer vast possibilities for experiential, interactive learning. Our best libraries are using telecommunications and other technology so that their resources are available wherever they are needed—in classrooms, homes, and offices.

Students who use libraries, museums and other cultural resources find more than information. They gain a sense of their past, customs, cultural and moral values, and the richness and diversity of the human experience. They learn to fix themselves in the stream of time, to understand and cope with change, and to live and learn in an increasingly complex world.

Libraries enable teachers to respond effectively to the different learning styles of students. Because library collections embrace so many fields of inquiry and knowledge, they provide unique opportunities for hands-on learning and discovery. They help children develop the information and analytical skills to comprehend and interpret primary sources, to draw conclusions from evidence, and to gain insights from the past.

HELPING ACHIEVE BETTER SCHOOLS

Libraries provide those opportunities and resources in the course of their everyday business. Beyond those important services, we believe that librarians in school, public, academic and other libraries can help the schools and communities to raise and educate our children better. The President has called for "America 2000 Communities" in which the total community participates in the planning and action required to provide the schools we need. Librarians in all types of libraries (and public library trustees) can help by:

(1) helping us specify the skills, knowledge and understanding which students need to acquire;
(2) helping train a corps of teachers to identify and use the resources of community institutions in their teaching;
(3) supplying experience as well as materials and information for in-service training in which teachers learn to use primary source materials, instructional television and the whole range of library resources;
(4) helping develop the National Research and Education Network.

(NREN) that teachers and students need in today's world of learning. Public and academic libraries can cooperate with the schools to explore possibilities for work-study, internships, or other experiences for students and teachers. They can provide learning sites and after-school and weekend programs that prepare children to learn independently and use information effectively. Above all, schools should help children become public library users. Public libraries are the only educational institutions charged to serve all ages and conditions of persons with whatever information or knowledge they want or need. As Vartan Gregorian once said, "No one graduates from a library." Yet, without knowing how to use a library in this information-dependent world, no one should graduate from school at all.

BEYOND BASIC EDUCATION: LIBRARIES AND GREATER PROBLEMS

Libraries can play an important rule, too, in addressing expects of the complex problems of poverty, neglect, racism city educational inequity that confront our society. Today, our best libraries have family reading programs that engage parents and young children in reading together wherever families can be reached—homeless shelter, welfare hotel, rural welfare office. Their materials reflect the diversity of the community and the multicultural nature of our society. Their outreach to day-care centers and private neighborhood babysitters assures that being "read to" is an important part of each child's day. The deeply entrenched and complex problems of poverty, racism, and educational inequity cannot be solved solely through the libraries, but I do think that libraries can play an important role in addressing aspects of these Dickensian challenges to our future. The programs that are now in the best libraries must be supported and made available everywhere there is a need.

Reading is still the best way to stimulate and to satisfy hunger for knowledge. But this appetite is one that will develop best when the essentials of life are in place; for a child, that means love, stable and attentive care, good nutrition, personal safety, well-founded hope for the future. Libraries have a role in helping people, community organizations, and government to see that these essentials of life are available. Some examples:

—Public libraries help parents introduce children to their first picture books. The children's librarian, the "toddler program," and the children's story hour help parents become effective "first teachers" of their children.
—Materials and programs that reflect the diversity of the community enable both parents and children to meet other people and learn how their cultures and backgrounds are both different and similar.
—After-school homework corners in the public library, with volunteer older students or adults to give attention and support to children, are valuable both to the latchkey child and to the "only child" who needs to work with others.

—Partnerships with local elementary schools assure that each child has a library card and has opportunities to use it.

—Public library "computer pages"—enthusiastic, outgoing high school students—help both children and adults in their first experiences with using a microcomputer.

WHAT IS UNDER WAY AND WHAT IS NEEDED

All of these things, and many more, some of our libraries are doing. Librarians have developed partnerships that benefit both children and adults: partnerships with day-care centers, for example, or with volunteer adult literacy programs such as Laubach Volunteers and Literacy Volunteers of America. Libraries have close working relationships with formal literacy programs in prisons schools, work places, and community colleges.

The White House Conference shows that librarians continue to strive for an understanding of the needs—not only of library users—but of those who would be users if they felt welcome, if they felt the service filled their basic needs, and if they found programs and materials relevant to their lives, ambitions, and culture. We need to be sure that librarians' education helps them develop the skills to work with people from a variety of backgrounds and languages, with a variety of needs, including illiteracy and learning disabilities. Teacher education must also include development of more sophisticated abilities to use the myriad resources of the school library media center, the school library system, the public library, records repositories, and other learning tools. The goal, for every one of us who works with youngsters, should be to help them learn how to learn independently through life, not merely to absorb what the teacher and the textbook offer.

To achieve the aims of America 2000 will entail greater support—even in difficult times like these, and perhaps especially in such times—for the outreach programs of libraries, for literacy programs, for youth services, for school libraries and school library systems. We need a national resolve to see that libraries become partners with schools and other community agencies in providing services to every child from the earliest age. To carry out that resolve, both schools and libraries must take initiatives they have not taken before.

At a time when an individual's dependence on information to be productive has never been greater, when librarians need to develop technical skills, subject-matter knowledge, and human-services abilities as never before—graduate schools of library and information sciences are closing and a real shortage of librarians appears certain. Yet our research base depends on the quality of our great research libraries; these libraries are important to lifelong learning, to the vitality of communities and of commerce, and to the educational growth of our children. We must take action before we let erode one of the most truly democratic institutions of this democracy.

A FEDERAL RESPONSIBILITY

Your committees have shaped Federal programs that are helping libraries meet urgent needs children and adults have today. These programs are helping libraries prepare people and communities for the 21st century. Let me suggest the following ways in which you can strengthen these established, effective programs:

The Library Services and Construction Act (LSCA). LSCA should be strengthened by declaring family literacy a priority and recognizing the unique roles of libraries in addressing the nation's problems with illiteracy. The NCES report on *The State of Mathematics Achievement* documents the correlation between the educational level of parents and the educational achievement of their children. For instance, NCES shows that the average mathematics proficiency for an 8th-grade student with at least one parent who is a college graduate is approximately 32 points higher than that of students who reported that neither parent graduated from high school. We are convinced that in this respect, "mathematical literacy" and "literacy" are similar. Parents are also convinced. Parents who are not good readers often enroll in a reading or literacy program because they want to read to their children.

Librarians are also convinced that adult literacy requires community attention. Four out of five public libraries responding to a Public Library Association survey reported strong commitments and actions to increase adult literacy. All public libraries would do so, with Federal and State assistance. All should do so, because they are uniquely situated in communities and neighborhoods across the nation. As independent, informal educational institutions, open to all, in communities and neighborhoods of all sizes, they can work with schools, community colleges, volunteer organizations and agencies. Some libraries are in a position to be lead agencies in addressing the scandal of illiteracy; all must be involved in the effort.

LSCA Titles VI (Library Literacy) and VIII (Library Learning Center Programs) should be made State-based, rather than discretionary, so that all LSCA literacy and family learning programs within a state can be effectively coordinated with state and local literacy efforts, regardless of sponsorship.

Your support of an expanded LSCA Title III program (Interlibrary Cooperation and Resource Sharing) in the 1990-94 reauthorization lays the groundwork for the information resource sharing needed to accomplish our vision of education in the 21st century. Much of today's learning technology began with library initiatives—Title III, which brings together all library and information center resources, provides the centerpiece for cooperation in sharing learning resources and is assisting each state in developing a statewide network or resource sharing program. Public and school libraries must be full participants in the National Research and Information Network (NREN). Because NREN and the Higher Education Act technology programs are directly related to the statewide networks, Congress should expect the NREN and HEA programs to be coordinated with LSCA Title III in each state.

Because no child, teacher, or school stands alone in this complex society, and because they all need access to diverse learning resources reflective of our multicultural and interdisciplinary society, it is more important than ever to ensure that school library media centers are full partners in library networking. Our school library systems in New York State have shown how much students and teachers benefit when school libraries move toward becoming "electronic doorway libraries." Most of our schools are members of school library systems which reported nearly half a million interlibrary loans in 1989-90. Yet, few of the 92,500 school library media centers in the nation belong to such systems. It is shocking that we have schools without the learning resources teachers and children need, and that these libraries are not connected to the networks that provide information teachers and children need. LSCA should include a new title for school library development and network participation.

With all we are doing to improve our libraries, the information in them is not as accessible as it must be in today's society. The West Virginia delegation at this conference has provided each of us with the "All American Library card," and we in New York State are committed to helping all libraries become "electronic doorways" to information. Our State conference endorsed an electronic library card. LSCA is helping us build the infrastructure to help people get information. You and I probably are carrying credit cards today that enable us to use telecommunications services, buy books, or place a order for a magazine subscription on the spot. How about a card that will enable the inner city student or the rural youngster access to any information in any library?

Higher Education Act. The HEA reauthorization should help academic libraries in every state expand resource sharing through an Academic Library Technology and Cooperation program to help needy institutions link to statewide and broader resource sharing networks and the NREN.

It is good that the House Appropriations Committee has proposed $5 million for Title II-B (Library Training), recognizing the shortage of librarians in the late 1990's. There is a particularly acute, and growing, shortage of librarians to work with children and youth, catalogers to work with computer-based catalogs, and those with ability in several languages, and librarians with the background to work with minority communities. Our library staffs should reflect the diversity of cultures that constitute our nation. Library staffing problems are complicated by the mismatch between expensive graduate education and relatively low salaries for librarians. The Higher Education Act should include a bold new "National Library Corps" so that no one is prevented from obtaining a library education because of a lack of financial means. The Corps would advance preparation of a new generation of library and information professionals through preprofessional recruitment, low-cost loans and work study, loan cancellations in exchange for work where most needed, and advances in graduate library education, including distance learning.

The electronic and telecommunications revolution is bringing all types of libraries together, and today the future of our great research libraries is of immediate concern to people in our smallest communities. The HEA "Strengthening Research Libraries" program can make materials essential for education reform in a multicultural society available to schools throughout the nation.

Libraries as Educators on Public Problems. Every social problem today is complicated by a lack of information. Poor people lose their homes because they lack the information they need to deal with unscrupulous landlords or employers.

People take risks because they do not know how to protect themselves against drugs or AIDS. People cannot obtain government services that would help them help themselves because they don't know where or how to apply. Because libraries are the community information center everywhere—in city neighborhoods and in our smallest communities—they can and do play an important part in the dissemination of information people need to do their part in addressing vital national issues.

The public library is an information source we must exploit. Congress should direct Federal agencies to use the nationwide network of public libraries and the depository library system to disseminate information people need. And Congress can establish a clear role for public libraries in educating the public about such problems as drug abuse, youth-at-risk, and consumer health, by allocating to libraries the resources they need to carry out this role. Perhaps we need an information slogan: "A dollar for program and 10 cents for information."

Each of these programs needs support. Federal dollars will always be the smallest portion of library support, because the states, communities and institutions will carry most of the burden. And relatively small increases in Federal aid will generate increases in that support. We must be honest about Federal support of education and libraries. At the time "A Nation at Risk" was published in 1983, the Federal contribution to elementary and secondary education was nine percent. Today, it is six percent. I hope that the 102nd Congress will hear the recommendations of the White House Conference, and enact the expansions and improvements needed in this sound program by strengthening the outreach, literacy, youth services, and resource sharing programs and provide the increased LSCA appropriations to carry out the job. This would demonstrate the national resolve that libraries become partners with schools in providing services to every child from the earliest age and that libraries carry through in serving all adults as lifelong learners. I believe many libraries and schools are ready to take initiatives they have not taken before. You can help them by supporting educational reform and library services that meet the goals of educational excellence we all share.

Senator **Pell**. I thank all five of you for your really very moving and compelling testimony. I turn to Dr. Billington for a moment because he presides over the Nation's libraries' library, and I think we often do not recognize the debt we all owe to the Library of Congress. I know how glad I am to chair the Joint Committee on the Library of Congress—in fact my father was on the committee 70 years ago, so we have had a long interest in it. I think we sometimes take it for granted.

I am curious, Dr. Billington, as to how you would handle requests for information or literature from overseas; how is it made available to them, or do you refer such requests to other libraries? For example, a request for information or a particular volume from, say, the national library in Great Britain or France or Germany.

Mr. **Billington**. First of all, we exchange books on interlibrary loan free of charge with other research libraries in this country and abroad, so there is an exchange of books. There is a high degree of exchange of bibliographic information. Our computerized files and so forth, the actual materials make it possible to share our bibliographic records with overseas institutions, and with optical scanning device, it will soon be possible to share the actual text of things electronically.

As it is now, bibliographic information is available electronically, and books and full text delivery, of course, in important cases can be sent by fax or by some other instantaneous rapid delivery system. But it is only a matter of time that we will be able to share the actual text electronically.

With our American Memory Program, which is the pilot program in sort of full-text delivery, we are dealing with multimedia materials—it is American material for America—but eventually, it will be a model for fuller sharing internationally of full-text materials from the Library of Congress which many would want.

We of course refer things on. We have just set up a national referral center which formalizes what we have been doing for a long time, answering several million requests from around the country and internationally. And most of those are referred within this country to other libraries, and we refer other foreign countries to appropriate collections and sources in the rest of the country. So we see our role as very much of a switchboard.

We have been examining a national science and technology information system which will refer people on to other databanks and other sources and collections. The New York Public Library, for instance, has a very ambitious new business library which it is entertaining. And we don't duplicate what others are doing. In other words, we see our role as both an information provider, usually information of last resort, and as a switchboard for referring people to others in this remarkable network of libraries which America has uniquely created.

So we are a point of international contact, but we are also a point of making connections that involve others as well in this growing global international network.

Senator PELL. Thank you.

Another specific question. I am concerned about the small libraries—I know there are some in my State—who can't afford to join electronic networks for the moment. How long will you print the little cards? [Laughter.]

Mr. BILLINGTON. Well, Senator, as long as we can afford it. [Applause.]

Senator PELL. There is a need; I know that from some of my local libraries.

Mr. BILLINGTON. There is a continuing need, and there is a very rapidly escalating expense because the advance of on-line computerized bibliographic records is so rapid that the numbers are small, and the expense of this, considering the rapidly declining user base, is very small. But we are well aware of your concern on this, and it is simply a question of balancing the high desire of continuing to delivery this service with the rapidly escalating expense that it involves.

Senator PELL. I thank you very much for your reply, and I congratulate you and the organization you head and the job you do, as I said, of being the Nation's libraries' library, and you as the library's librarian.

Dr. Healy, we miss you very much as a neighbor and wish you were still here. I am curious as to how you feel about the research libraries, which are so few now—as I understand, there are less than a dozen. Should there perhaps be more in the United States?

Reverend HEALY. It depends on how you group them, Senator. There are probably about ten that, for instance, are parallel to the Library of Congress in buying over 60 percent of their material from abroad.

I don't know if this statistic is true, and I'll yield to superior judgment on it, but somebody told us that all of us together, all of the great research libraries, are picking up about 15 percent of what is published in the world. So there is plenty of room for expansion, Senator.

Senator **Pell**. Thank you very much indeed.

I have another question that hopefully somebody on the panel can answer. That is, what is the situation with regard to making libraries available to people in prisons? As you know, our rate of recidivism is pretty bad.

Reverend **Healy**. We have responsibility for only one of the major ones in the City of New York, and that is Rikers Island, and we do that with a fairly large bookmobile—in fact, two of them, because the prison is divided into two parts, and we can't go from one to the other. And it is a fairly heavy-trade item. I can't give you the statistics, but that is funded by the State as a matter of fact, Senator, so it was not as badly hit as the city budget this year.

Senator **Pell**. I think there is a very real need because life is to empty in a prison, and the direction in which the young men and women will go afterward will be determined in great part by what they absorb in prison. So many of the prisons have just become schools for crime.

Mr. **Venezky**. Senator, it is important to note that probably 70 percent of the average prison population has low reading skills so that the average materials in a library probably are not adequate for that group. That is, one has to draw from this 12 or so publishing group who now put out the high-interest, low vocabulary material.

Senator **Pell**. I see.

Dr. Billington.

Mr. **Billington**. Senator, the Library of Congress distributes about a half million books free, duplicates and surplus, to other libraries in the United States and other primary users, and high on that list are the prisons and Indian reservations, which receive quite a substantial amount.

You have gotten onto a very important point. However, I was talking with the distinguished State librarian of California just the other day, and he reminded me that a prisoner has many times more likelihood of getting access to a library than a student in the public schools of California at the moment. [Applause.] So we are dealing with a problem which is either going to prevent or create the new criminals of tomorrow if we don't get them reading before they get into prison as well. [Applause.]

Senator **Pell**. I thank the panel very much indeed for being with us.

The next panel consists of Ms. Patricia Glass Schuman, with the American Library Association; Mr. Enrique Ramirez from San Francisco; Dean Wedgeworth, Dean of the Columbia University Library School; Dr. Lotsee Patterson, representing Native Americans; Laurence Reszetar, chairman of the White House Conference Youth Caucus; THeresa Nellans, Assistant Director, Office for the Deaf and Hearing Impaired, Harrisburg, PA; Ms. Julianna Kimball, of Phoenix, AZ; Dr. Wayne Smith, President and CEO of the Online Computer Library Center in Dublin, OH; Ms. Virginia Fox, chief operating officer, Kentucky Authority for Educational TV; Mr. Richard Miller, State Librarian of Montana; Ms. Joan Ress Reeves, representing Lay Library Advocates from Providence, RI;

and Mr. Frederic Glazer, director of the West Virginia Library Commission Science and Cultural Center.

I am going to exercise my prerogative as a Senator to call on the witness from my own State first, who would be Joan Reeves.

You are all limited to a couple of minutes, which I regret, but we do have the exigencies of time.

Joan, welcome.

STATEMENTS OF JOAN RESS REEVES, CHAIR, WHITE HOUSE CONFERENCE ON LIBRARY AND INFORMATION SERVICES TASK FORCE, PROVIDENCE, RI; PATRICIA GLASS SCHUMAN, PRESIDENT, AMERICAN LIBRARY ASSOCIATION, CHICAGO, IL; ENRIQUE LUIS RAMIREZ, SAN FRANCISCO, CA; ROBERT WEDGEWORTH, DEAN, COLUMBIA UNIVERSITY LIBRARY SCHOOL, WHITE PLAINS, NY; LOTSEE PATTERSON, ON BEHALF OF NATIVE AMERICANS; LAURENCE J. RESZETAR, CHAIRMAN WHITE HOUSE CONFERENCE YOUTH CAUCUS, SEVERNA PARK, MD; THERESA A. NELLANS, ASSISTANT DIRECTOR, OFFICE FOR THE DEAF AND HEARING IMPAIRED, HARRISBURG, PA; JULIANNA KIMBALL, PHOENIX, AZ; K. WAYNE SMITH, PRESIDENT AND CEO, ONLINE COMPUTER LIBRARY CENTER, DUBLIN, OH; VIRGINIA GAINES FOX., CHIEF OPERATING OFFICER, KENTUCKY AUTHORITY FOR EDUCATIONAL TELEVISION, LEXINGTON, KY; FREDERIC J. GLAZER, DIRECTOR, WEST VIRGINIA LIBRARY COMMISSION, CHARLESTON, WV; AND RICHARD T. MILLER, STATE LIBRARIAN, HELENA, MT

Ms. REEVES. Thank you, Senator Pell, for putting me on first while you are still here, because I wanted to have the opportunity to thank you particularly, as well as Congressman Williams and all the cosponsors, but you particularly, Senator Pell, because I think you have probably done over the years more for library and information services than anyone else in this country. We thank you for that. [Applause.]

I am chair of the White House Conference on Library and Information Services Task Force, which we call WHCLIST, and I am also a member of the White House Conference Advisory Committee.

WHCLIST was formed in 1980 as a result of a recommendation of the 1979 White House Conference—in fact, we were the 56th recommendation that was implemented out of the 64. We have become over the years a strong grassroots volunteer national network, supporting library and information services in our mission to implement the first White House Conference and plan for this one.

WHCLIST members have founded and taken leadership roles in statewide and local library support groups across the country. In Rhode Island, we came back from the first conference fired with enthusiasm and founded the Rhode Island Coalition of Library Advocates, which now represents over 4,000 people and has done terrific things to support library and information services in Rhode Island. We were largely responsible for the passage of a constitutional amendment—the second one in this country—to the Rhode Island Constitution, mandating general assembly support of libraries. And we have been instrumental in the passage of important library legislation in the State.

WHCLIST has increased public awareness of libraries and has helped develop a cadre of lay library leadership throughout the country. Again, back in Rhode Island, as a result of the White House Conference process, the governors' conference process, we hope we have stemmed the tide to a certain extent of some of the devastating cuts we are seeing in Rhode Island to libraries. We are facing closings, we are facing layoffs, we are facing pay cuts to librarians whose pay is already too low. And because of our new leadership—some of those people are in this room—Mary Jones, Rose Ellen Reynolds—people who have come out of that process when we had those terrible budget proposals of $1.9 million, which is nearly 50 percent of the whole State budget, we got $1.2 million restored. We are still hurting, but we are hurting less; and we are hurting less largely because of lay library leadership in Rhode Island.

We all know what those cuts mean to lay people, and lay people can help lay people. We know that in this depressed economy, we need to make sure that people have free access to information they need to get jobs, to write resumes—just to survive in a world where people need to read to survive. We need that kind of lay leadership to make sure that people have access, free, to information for fixing an old car because they can't buy a new one; fixing an old house because they certainly can't afford a new one—and you certainly can't sell your old one these days.

We need information free for our public officials to make the decisions they need to make to govern our democratic society.

So can anyone doubt that libraries are essential services—they are not luxuries. And we need our lay leadership to support those services.

We thank you for the opportunity to have a White House Conference to develop that new cadre of lay leadership, and we thank you for the opportunity to get together and shape national policy and to bring out these new lay leaders.

Thank you very much.

Senator PELL. Thank you very much indeed.

[The prepared statement of Ms. Reeves (with an attachment) follows:]

PREPARED STATEMENT OF MS. REEVES

I am Joan Ress Reeves of Providence, RI. I'm proud to be from Rhode Island, with its outstanding Congressional representation, particularly our distinguished Senator, Claiborne Pell, who has probably done more for library and information services over the years than anyone else in this country. I chair WHCLIST, the White House conference on Library and Information Services Taskforce, and I'm a member of the White House Conference Advisory Committee. I'm not a librarian; I'm a layperson who loves libraries. The 1979 Rhode Island Governor's Conference and White House Conference and WHCLIST changed my life. I devote most of my time volunteering to support libraries.

On behalf of WHCLIST, I thank Senator Pell, Congressman Williams, and all the members of this panel for their support of the White House Conference. It is an honor—and also testimony to our democracy—for a layperson representing what is essentially a lay group to speak at this hearing. Thank you for that opportunity.

WHCLIST was founded in 1980 as a result of a resolution of the 1979 White House Conference, to monitor recommendations of the Conference and to plan for a second White House Conference. Since then, we have become a strong grass-roots national network committed to insuring the best possible library and information services to all people, working toward increased public awareness of those services, and sharing ideas across the nation. I am including with this testimony a brochure that describes WHCLIST in some detail.

The flame was the logo of the first Conference and is WHCLIST's logo. WHCLIST members have carried the flame to the White House Conference since its beginning. They have helped to found local and statewide library support groups and played leadership roles in these groups.

In Rhode Island, for example, we came back from the first White House Conference and the first WHCLIST meeting inspired and ready to spread the word about library and information services. We founded RI's statewide group supporting libraries of all kinds: the Coalition of Library Advocates. COLA now has over 4,000 members: individuals, libraries, organizations, and members of Friends of Library groups.

In 1986, COLA was largely responsible for an amendment to the State Constitution, passed by 68 percent of the voters, mandating General Assembly support of public libraries. We were the second state in the Union to include libraries in its Constitution. The same year, the University of Rhode Island Library School (the only public graduate library school in northern New England) was threatened with closing. COLA helped keep the school open. In 1989 and 1990, COLA helped achieve passage of bills requiring increased library funding and a streamlined governance system for statewide library services.

In its mission to implement White House Conference recommendations, WHCLIST supports important library issues like literacy. Let me give you an example. A former WHCLIST Chair, Mary Kit Dunn, is a library trustee and member of her Friends of the Library group. Her achievements and the time and energy she contributes represent the committed volunteer efforts of WHCLIST members in support of library and information services.

Ms. Dunn founded an outstanding literacy program in her home town of Greensboro, North Carolina. This year-long program included a performance by the Ringling Brothers circus to benefit literacy, story hours, sermons on literacy by clergy, media promotions, contests among school children with the winners attending writing workshops led by well-known authors, and dozens of other activities. The year culminated in the establishment of a coalition for literacy that includes representatives of libraries, schools, corporations, unions, community agencies, and the media.

The coalition established the Vance Chavis Lifelong Learning Library, a branch of the Greensboro Public Library dedicated to family literacy and lifelong learning. A recent bond issue will fund an addition to the library building; and a community-wide drive raised funds for materials and staff, including staff development and training for family literacy. One feature of the program is designed for single parents on welfare: While they are gaining reading skills, their children are enjoying the library.

Who are WHCLIST's members? WHCLIST consists of one lay and one professional delegate from every state and territory, the heads of state and territorial library agencies, and other individuals, organizations, and corporations. Our membership, open to all, numbers over 750. We have published annual reports from the states on the progress of the recommendations of the first Conference. A number of our members represented WHCLIST on the Preliminary Design Group which laid the groundwork for P.L. 100-382, authorizing the second White House Conference.

WHCLIST has always worked in partnership with other groups. We have achieved our goals largely through coalition building and networking. The National Commission on Libraries and Information Science has supported WHCLIST from the beginning. The Chief Officers of State Library Agencies are WHCLIST members who are vital to our activities. The American Library Association and the Special Libraries Association work closely with us.

Two lay groups stand out: the American Library Trustee Association (ALTA) and Friends of Libraries USA (FOLUSA). Channing Bete, an ALTA member from Greenfield, Massachusetts, proposed the concept of the first White House Conference in 1957. ALTA members have volunteered millions of hours for libraries and are deeply committed to the White House Conference process. FOLUSA, with its thousands of members, logs impressive volunteer hours and millions of dollars for libraries.

WHCLIST is the only organization devoted primarily to the White House Conference process. As both Charles Benton, Chair of the first White House Conference, and William Asp, past Chair of WHCLIST, have said, the Conference is a process, not an event. It is a continuum that goes from the national level to the states and local communities, back to the national level, again to the state and local levels for implementation—and the cycle begins again.

The resolutions that established WHCLIST also called for a White House Conference every decade. WHCLIST's task, then, continues after this second White House Conference. We are committed to the continuity of the process. Recognizing that any organization worth its salt must consider new leadership as a top priority, we have worked out a transition plan that builds in new leadership to support library and information services for the next decade and beyond.

We are visiionaries—but we're also realists. Right now, the economy is forcing library closings, layoffs, and curtailed hours in state after state across the country. In Rhode Island, just as we had achieved legislation mandating 25 per cent state funding of the operating budgets of public libraries by the 2000 (from the 1989 level of 6 percent), we were faced with a devastating state deficit. The Administration recommended a cut of $1.9 million to libraries—including a 77 per cent cut in aid to the Providence Public Library and zero funding of grant-in-aid to local libraries.

The good news is that $1.2 million has been restored to the library budget. That happened largely because of the advocacy efforts of the library community—including the volunteer leadership of people who have become library support3ers because of their involvement in the Governor's Conference. It is exciting that, even before the final resolutions of the White House Conference are passed, we already have new leadership to carry the flame.

The bad news is that Rhode Island will now reimburse only 2.65 per cent of grant-in-aid to local libraries in 1992; Interlibrary Loan is severely cut; no applications are being accepted for library construction; staff of the Department of State Library Services have taken serious across-the-board pay cuts; and federal funding through the Library Services and Construction Act may be threatened.

Rhode Island is not alone. Other states' library services are in even worse shape. I am attaching to this testimony an article in the May issue of *American Libraries*, published by the American Library Association, describing the plight of the states.

The irony of the situation is that, as the resources are dwindling, the needs of library users are increasing. In times of economic depression and recession, library use soars. Public Law 100-382 calls for a White House Conference "for the further improvement of the library and information services of the Nation and their use by the public." What insight Senator Pell, Congressman Ford, and the other drafters of the legislation showed when they talked about "their use of the public." We don't support library and information services for their own sakes; we don't look for access for the sake of access. We look to the use of library and information services for the improvement of our democratic society.

Through these services, we can solve the tragic and costly problem of illiteracy in this country; we can help increase our nation's productivity; we can strengthen our democracy.

What institution other than our public libraries offers to all people in this country, of any age, background, physical, economic and social condition, information—free—to help us fix our house because we can't afford to buy a new one; to fix a car because we can't afford a new one; to plant a garden and grow vegetables to nourish us; to write a resume to help us find a job? Where else can students of all ages find sources for research? Where else can we get entertainment and recreation—free—to take us away from the drudgery of our daily lives and transport us to other countries, other times, other galaxies? Where else can small and big businesses get all kinds of information—free—about markets, products, patents? Where else can our public officials get the information they need to help them make the crucial decisions that govern our country?

Can anyone doubt that libraries are essential services when they fill these needs? These are not luxuries. These are ongoing services whose support is a cost-effective investment in a better America.

With the explosion of information in our era, and the awesome potential of technology to deal with that information, the White House Conference gives us a unique opportunity to examine our resources and to shape library and information policies for a better America as we approach the 21st century. The Conference gives us a unique opportunity to develop a knowledgeable new cadre of volunteer leadership with heightened awareness of the "use by the public" of library and information services. Thank you for giving us those opportunities.

SPECIAL REPORT

The recession and public libraries

BY GORDON FLAGG

An AL survey of the states finds that the economic climate for libraries ranges from "good" to "grim."

If anyone still harbors doubts that the nation is in the midst of a severe economic downturn, recent reports from public libraries around the country offer evidence otherwise. Horror stories have poured in—from three successive budget cuts in this fiscal year at New York Public Library, forcing layoffs and service cutbacks (*AL*, Mar., p. 190-191), to an entire rural California county narrowly averting bankruptcy (*AL*, Dec. 1990, p. 1025). But are these events dramatic but isolated instances, or do they represent a crisis facing libraries everywhere?

To find out, *American Libraries* contacted the 50 state library agencies to determine the current economic climate for public libraries in each state (academic libraries at public institutions are even more affected by the health of state government, since they have no access to local funds, but they fall outside the scope of this survey). We also asked them to identify individual libraries in the state facing extraordinary financial situations, and whether the state legislature was taking any action that might affect libraries.

The assessments of economic health ranged from "good" (Ohio) to "grim" (Rhode Island), "dire" (Montana), and "critical" (Maine). Some states cited difficult times, but indicated that the condition, rather than being caused by the current recession, was chronic: South Dakota State Librarian Jane Kolbe, for example, characterized her state's current status as "About the same as usual, poor."

So rather than offering any sweeping pronouncements on the state of libraries nationwide, the following roundup shows mostly that funding levels are a source of concern—even if services and jobs aren't endangered—virtually everyplace. In states that are currently economically comfortable, libraries still have to worry about property tax relief measures, failed bond issues, and other obstacles; and in states that have suffered major revenue shortfalls, libraries have often undergone a disproportionate share of the cuts. (Although responses were obtained from virtually every state, some states with relatively little to report are omitted from this report.)

Grim times in the Northeast

The hardest-hit region is the Northeast, where the economy has been in a slump for over a year, with no upturn in sight. State librarians in the region described their status in such bleak terms as "grim," "dismal," and "critical."

One of the worst situations in the nation is in **Massachusetts**, where John Ramsay of the Board of Library Commissioners reports the state is experiencing "its worst economic period in recent memory." The 10-year-old Proposition 2½ has limited the ability of localities to raise property taxes, and the state's infamous deficit forced a reduction in the level of local aid the state had been supplying to alleviate this limitation. Together with the general downswing in the economy, these cutbacks have left communities "reeling," according to Ramsay.

Ramsay reports that some 30% of the state's libraries have had to substantially reduce main library hours, over a third have cut materials budgets, some 20 branches have closed, bookmobiles have been idled, and capital projects, continuing education funds, and travel reimbursements have been cut.

"No one at this point is certain about what FY92 holds for libraries," Ramsay said, "but most predictions are that things will get much worse." The governor's FY92 budget proposes 10% cuts for state aid to libraries and regional systems, but gives them the option of charging user fees, which has been illegal in Massachusetts for decades. The budget also eliminates the only direct state support for the automated resource-sharing networks.

Library cutbacks in New York City have been reported extensively in the library press (*AL*, Jan., p. 6-7; Mar., p. 190-191), but libraries throughout **New York** State are going to feel the heat as well. State Librarian Joseph Shubert reports that in the face of the state's $6 billion deficit, Gov. Mario Cuomo has proposed 10% reductions in state agencies' spending and state aid to localities. Shubert credits the 1990 Governor's Conference on Library and Information Services for limiting the cuts in library aid to 10%, since some programs, such as public broadcasting and the arts, would be cut as much as 50%.

Pennsylvania also faces a revenue shortfall—$731 million for the current fiscal year—forcing Gov. Robert P. Casey to implement budget reduction measures, including a $2 million reduction in state aid to libraries. Other cuts were made in the statewide library card reimbursement program and the library delivery system, which were each reduced by $250,000.

In **New Jersey**, a proposed law would eliminate current minimum funding requirements for local public libraries. The New Jersey Library Association has voiced fears that eliminating the dedicated funding requirement would threaten county library systems and result in libraries taking cuts that are disproportionate to their share of the overall municipal budgets.

Even **New Hampshire**, after six years of unprecedented growth, is experiencing a major recession. Unemployment, once the lowest in the country, has risen to over 7%, and the government has been cutting back in the face of declining state revenues. State Librarian Kendall Wiggin reports that the budget for the state library, like all departmental budgets, is "in trouble"; however, since New Hampshire has no direct aid to libraries, legislative actions do not directly threaten local libraries.

Hard times in oil country

Hard times have been around even longer in the oil-producing states. As Texas State Librarian Bill Gooch put it, "I think the economic downturn started in Texas and the other oil-producing states before it hit elsewhere, and we've had three or four years' experience with hard budget reductions." Gooch said the picture is better now than it was when the oil crunch first hit, with many libraries showing signs of stabilizing and some beginning to show increases. However, the 1992–93 biennial budget currently under consideration reflects a 10.5% reduction from current figures, which would mean $2 million less for the State Library and $1.2 million less for the Statewide Library Development Program for the two-year period.

Bill Young of the **Oklahoma** Department of Libraries cites a similar situation: funding problems there are "not so much from the current recession, but rather a continuation of problems brought on by the oil bust and the farm crisis of the 1980s and the inability of local areas to secure dedicated funding for library services." A building boom during the heyday of oil prosperity has resulted in a glut of real estate, and recent reassessment of property values has resulted in a decrease in the operating budgets of some library systems. Young said that per capita state aid to public libraries has only recently reached the 1983 level. However, he speculates that Oklahoma's flat economy over the past few years has ironically shielded the state from any major impact from the current recession.

Rocky times in the Mountain States

The downturn in oil production has also adversely affected libraries elsewhere. In the Rocky Mountain region, the loss of oil production in **Wyoming** has resulted in major fiscal problems for the Fremont County Library, which has cut hours for its two main buildings, staffed smaller branches with volunteers, and made other operating cuts. By contrast, the Campbell County Library, in an area where coal mining is a mainstay of the economy, is well staffed, with a $1 million budget for 30,000 residents.

In **New Mexico**, the continuing slump in oil and gas severance taxes has reduced state government revenues, so funding for new library programs is unlikely. However, State Librarian Karen Watkins said most libraries are "holding their own, if only just barely in some cases." An exception is Albuquerque Public, the state's largest library, where hours in the system's 12 branches have been cut from 642 to 540 a week, and staff is down from 148 to 125. Belen Public is also hard-hit, with staff cut from seven to three-and-a-half and no books purchased since last August; its promising adult literacy program has been cut from 25 to 15 hours a week and is in danger of ending altogether. Librarian Dolores Padilla says the library is skimping by with donations, volunteers, and grants.

Together with the general downswing in the economy, cutbacks have left [Massachusetts] communities "reeling"....

Library spending in **Montana** has been limited for the past five years by a 1986 taxing/spending provision known as Initiative 105. On the positive side, however, the library items that were line-item vetoed by the administration in last year's state aid bill are in the current state budget. "That's good news," said State Librarian Richard Miller, "but the legislative session is far from over." Miller reports that the Lewis and Clark Library in Helena is going for its third emergency budget in three years to maintain services; the Parmly Billings Library put a one-year moratorium on book buying; and the Missoula Public Library was closed for three weeks.

A recent study by Boise State University found that **Idaho's** public libraries are among the most poorly supported public services in nine western states. State Librarian Charles Bolles places the blame not on the economic climate but on tax limitation programs and a funding priority for public schools. However, the legislature recently removed a 5% lid on annual increases in local property taxes, which will allow localities—including library districts—to set budgets based on need.

Deputy State Librarian Nancy Bolt reports that **Colorado** is "holding stable for now." However, Westminster Public Library, one of the state's larger suburban systems, was without a library director for several years (one was recently hired) and suffered major cuts to its materials budget during that period.

The **Utah** library climate is "fair-to-middling," according to State Library Director Amy Owen, who said that even slow growth is welcome is contrast to conditions elsewhere. Public libraries were successful in obtaining an increase of $106,000 in state aid funds, and the state library got $50,000 to implement a recent classification study of professional positions.

In fast-growing **Nevada**, State Librarian Joan G. Kerschner said the library situation is "fair to good." However, Washoe County Library Director Martha Gould told *AL* that a "rebasing" of the state's tax system will cost the county $6–12 million, some of which will come out of the library's hide. Gould said she is "planning for disaster": the library has frozen all expenditures and hiring and has an 11% staff vacancy rate.

Misery in the Midwest

State funding for **Michigan** libraries was reduced by 9.2% in FY90-91, following a

Poll tax creates crisis in British library funding

American libraries are not alone in feeling the pain of tough economic times: Public libraries in Britain have been forced to make severe cutbacks as a result of the notorious poll tax imposed last year by Prime Minister Margaret Thatcher. The unpopular tax, which was largely responsible for Thatcher's resignation last November, replaced local property taxes with a flat levy on all adults, regardless of income; the amount was decided by each community, and many tried to keep the rate as low as possible by curtailing services. Although the tax was recently rescinded by Thatcher's successor, John Major, the problems created by its imposition remain.

Britain's Library Association reports that 27 authorities have reduced library operating hours, frozen hiring, and stopped book purchases during the 1990 fiscal year. Some have closed branches altogether; Derbyshire, for example, has shut 11 libraries. Thirty-seven other authorities announced plans for cutbacks in the current fiscal year, which began in April.

School libraries have also been affected by the local authority expenditure cutbacks; in addition, a new government funding formula has reduced the money going to many schools. As a result, some authorities were said to be considering abolishing school libraries altogether.

The need for school library services was the subject of a debate in the House of Lords Feb. 20. Several speakers stressed the importance of professional librarians; for example, Lord Dormand, a Labour peer, said that "professional librarians . . . make a vital contribution to the service. Their absence simply lessens the value of the library to a considerable extent. We should consider an increase, not a reduction, in full-time librarians for schools."

The day before the debate, a delegation from the Library Association met for an hour with Britain's new Minister of the Arts, Timothy Renton, to discuss the crisis. Afterwards, the L.A. representatives expressed disappointment with Renton's response. "The minister seemed to think that we are still dealing with isolated examples of bearable reductions in public library services," said Chief Executive George Cunningham. "I don't think we have yet persuaded the minister that we really do have a crisis on our hands . . . ." —G.F.

Detroit Public Library cut hours from 40 to 20 per week at six of its branches and froze all hiring and promotions.

2.5% cut the previous year. This meant a loss of $900,000 to the Detroit Public Library, which cut hours from 40 to 20 per week at six of its branches and froze all hiring and promotions. Book budgets were slashed and expenditures for equipment, repairs, and supplies were deferred. Last November voters approved a one-mill levy for library services (*AL*, Dec. 1990, p. 1019), but the income will not begin until July.

The 9.2% cut also applied to the Library of Michigan. Deputy State Librarian Jeff Johnson said personnel reductions were held to a minimum, but one full-time and all six part-time positions were eliminated, and all vacant positions (currently totaling 20) are frozen. The loss of staff forced the library to discontinue evening service on Monday and Wednesday.

Although Assistant State Librarian Stan Gardner reports that the present state of **Missouri's** libraries is "livable," due largely to taxes passed in previous years for specific library projects, the long-term future "is looking grim," with a tight state budget meaning a possible reduction in funds available to public libraries. Joplin Public Library has reduced its operating hours by eight per week, and the Carter County Library headquarters is only open three days per week, with the director working a four-day week at a reduced salary.

Kansas State Librarian Duane Johnson said that the situation is "very stressed after several years of no growth. . . . Many libraries are being forced to reduce information purchases and cut back on public services." Additionally, all seven of the state's regional library systems are facing financial situations that require service reductions. The legislature has proposed a 5% reduction in state aid to libraries, on top of previous reductions.

The economic climate in **Minnesota** is "unsettled," according to Bill Asp of the state's Office of Library Development and Services. Although the state has projected a budget shortfall of some $1.2 billion in FY92, the governor's budget maintains FY91 funding levels for public library development and multitype library cooperation. However, a proposed reduction in aid to local governments may result in cuts in many local services, including libraries.

Even in states where the picture for individual public libraries is healthy, the state libraries are facing budget reductions as part of overall cutbacks in all government agencies: a 3% reduction in **Indiana** and 6% in **Iowa** (with the possibility of an additional 3% cut). Although the FY92 **Illinois** budget has not yet been passed, the State Library is anticipating reductions in travel, acquisitions, and grants and programs to libraries in the state.

On the other hand, in **North Dakota** the governor's proposed 1991–93 budget contains a 10% increase in funding for the State Library; that increase, as well as additional funding requested by State Librarian Patricia L. Harris, are awaiting approval by the legislature.

The State Library Commission is among the **Nebraska** agencies facing a possible 4% across-the-board budget reduction. Although the state economy remains relatively strong—its unemployment rate is among the nation's lowest—Commission Director Rod Wagner reports that a recent state supreme court decision exempting some personal property from the tax rolls means that local governments may lose millions of dollars in local taxes. "Since local public libraries in Nebraska receive over 90% of their support through local tax sources," said Wagner, "this matter poses a threat to public library funding now and in the future."

Sunnier in the South

Although not bright, the financial situation is better throughout the southern states. Many state librarians cite revenue shortfalls in their states, but there doesn't seem to be the sense of crisis found elsewhere.

In **South Carolina**, state aid to libraries has been reduced twice during the current fiscal year. The FY92 budget is currently being debated, and since state aid funds are allocated on a per-capita basis, if funding is not increased many public libraries in counties that have lost population will lose funds when new allocations are made based on the 1990 Census figures.

The most extreme situation in the state is that of the Williamsburg County Library. Pat Gilleland, public library consultant for the State Library, reports that the library, in the poorest county of the state, "has been perched on the brink of financial disaster for some time." Last summer the county government literally ran out of money, forcing county employees to miss two paychecks. The county was unable to borrow funds since previous shortfalls had already forced the county to overextend its credit. If the state legislature doesn't approve an increase in state aid, the county's population decline will mean a 13% cut in state aid for the library.

North Carolina State Librarian Howard McGinn reports that the economic climate in his state is "cloudy," with a large budget shortfall in the current fiscal year and an even larger one for next year. McGinn speculates that the General Assembly may be planning to reduce the current level of state funding for public libraries.

Joe B. Forsee, director of **Georgia's** Division of Public Library Services, reports that his state's outlook is "troubled. We'll do well to hold operating funds at continuation levels. . . . We hope to hold our own with state aid this year, although salary increases for state-paid librarians will probably not come through."

The Atlanta-Fulton Public Library and DeKalb County Public Library (*AL*, Dec. 1990, p. 1014) both face frozen positions and consequent cutting of hours; other libraries have reported similar problems. Most Georgia libraries lost some 12% of their state funding for materials; only the larger and more affluent libraries have secured additional funding for materials, said Forsee.

A projected $1.7 billion revenue shortfall has resulted in all **Virginia** agencies being directed to reduce their 1990–91 general fund appropriations by some 15%, with an equal or greater revision expected next year. However, funds allocated for plans for a new State Library and Archives building have survived budget cuts and appear to be a priority capital outlay of the state administration, according to Deputy State Librarian Nolan T. Yelich.

Although a front-page article in the Feb. 13 *Wall Street Journal* depicted the dire financial situation facing many libraries in rural **West Virginia**, Gov. Gaston Caperton has announced that he, the senate president, the speaker of the house, and the finance chairman have taken "a blood oath" to restore some $200,000 that had been scheduled for loss in the FY92 budget. Other actions expected to be enacted by the legislature include removal of sales tax from library services, a constitutional revision allowing library levies to pass with a simple majority rather than 60% of the vote, and a Distance Learning Bill providing funds for library telecommunications equipment and programs.

Tennessee State Librarian Edwin S. Gleaves told *AL* that most medium and

(Recession continued on p. 464.)

(Recession continued from p. 384.)

small public libraries in the state "are holding their own, however precariously, in these uncertain times." However, as a result of a drop in state revenues, the State Library underwent a 9% midyear cut, following a 5% cut at the beginning of FY90-91. As a result, nine positions have been lost and the facility is now closed on weekends.

West Coast wrap-up

On the West Coast, the situation facing **California** libraries has reached "crisis proportions" in the northern and central counties, with less severe conditions in the south. Collin Clark, data coordinator for the State Library, told *AL* that the hardest-hit counties include Butte (*AL*, Sept. 1990, p. 709; Dec. 1990, p. 1025), Shasta, Tehama, Placer, El Dorado, and Fresno.

"Many areas in **Washington** have never recovered from the previous downturn, which affected the logging and fishing industries and, in turn, revenue for libraries," said Jan Walsh of the State Library. However, she added, the current recession hasn't had a significant impact in Washington, which is experiencing "phenomenal growth," with major capital projects occurring around the state.

In **Oregon**, "economic conditions are good and getting better," said State Librarian Wes Doak. However, a property tax limitation measure passed in the last election will reduce the amount of funds available for libraries. Doak reports that the State Library lost some $600,000 from current levels in the latest budget. ☐

Senator PELL. We now turn to Ms. Patricia Glass Schuman, president of the American Library Association, from Chicago.

Ms. SCHUMAN. I want to thank you for holding these hearings today on behalf of the 52,000 members of the American Library Association. They come at an opportune time, because these are frightening times for all who care about the public's right to know.

Without well-funded and well-supported libraries, without open and equitable access to information, America's right to know is at risk. Librarians keep information affordable, available and accessible to all people.

Libraries have helped make America great. Libraries and librarians help schoolchildren to succeed, businesses to prosper, and our elderly to lead productive lives.

I am here today to ask your support and leadership in two key areas. The first is to continue full Federal funding for libraries. The President's proposed budget cuts funding by 75 percent. Libraries cannot afford this; America cannot afford this.

The second is to stop the privatization of Government information. To date, privatization policies have resulted in less access and higher cost for the American public. The right to know is much more than just free speech. It means having access to the information people need in an information society. To truly have the right to know, people need more than constitutional guarantees; they need your commitment and your support. We will not live in a true information society, we will not achieve equal opportunity or justice unless and until all people have the library services they need to learn, to live, to work, to participate and to succeed in our democracy.

In conclusion for the record, I would like to submit to your attention 13 issues developed by the ALA and its 21 affiliates for the second White House Conference, and since Senator Pell is an honorary member of the association, I would like to present you with an ALA member ribbon and a button that says, "Ask me why libraries are worth it." [Applause.]

Senator PELL. Thank you very much.

[The prepared statement of Ms. Schuman follows:]

PREPARED STATEMENT OF MS. SCHUMAN

I am testifying today on behalf of the 52,000 members of the American Library Association, the oldest and the largest library association in the world. We thank you for holding these hearings. As you consider the future of libraries in the United States, I would urge you to consider that the most important resources libraries have go home very evening: the library staff.

Librarians are a profession intrinsically bound to the ideals of democracy. Our very existence stands in defense of the First Amendment—and in defense of equality. When we are at risk, when library services are threatened and librarians are not valued, then the very basis of our democracy is endangered. And we are at risk. These are frightening times for librarians, for all who care about the public's right to know. We face tremendous obstacles:

—the shocking rate of illiteracy in both children and adults;
—the dangers and the potential of new technology;
—the privatization of public information;
—the closing of library schools and the difficulties of recruiting and training library professionals;
—the rapid deterioration of materials of all kinds in our nation's libraries;
—the widening gap between the information rich and the information poor

—the physical, financial, linguistic, psychological, and intellectual barriers that continue to widen that gap;
—declining public funds for public services;
—attempts to restrict the freedom to speak, view, and listen.

The list could go on. The litany of problems is all too familiar. It is almost overwhelming. But we cannot afford to be overwhelmed. The challenges we face remind me of a story about Yogi Berra ordering a extra-large pizza with the works. When the waitress asked Yogi if he wanted the pizza cut into six or eight slices, Yogi replied: "Six. I don't think even I can eat eight slices."

Of course, we can slice our pie many ways. But we should not forget that these slices are all part of one whole, one central issue: libraries and librarians are essential. Without them, without open and equitable access to information, America's right to know is at risk. America's right to know—and remember—our past. America's right to know—and understand—our present. And America's right to know—and evaluate—information which can determine our future.

Benjamin Franklin's novel idea, the free public library, was a radical concept: the distribution of books to everyone, regardless of age, sex, class, or income. Our library system is a national treasure, unique in the world. Librarians who work in the more than 115,000 school, public, academic and special libraries throughout the nation have enabled millions of Americans to learn, to achieve, to flourish, and to prosper.

Pieces of this national treasure are eroding rapidly. Protecting this system involves no less than preserving the public's right to know. Libraries and librarians help make people aware of information. Librarians keep information affordable, available and accessible.

Information is not simply a product, a commodity to be bought and sold to the highest bidder. The cost of information is often independent of the scale of its use. A given piece of information—a stock price or a scientific discovery—costs the same to acquire whether the decision to be based on it is large or small. Research leading to the treatment of AIDS will cost the same whether it is used to help 100 or 100,000 patients. But the value and the influence of that information is vastly different.

Lobbyists for more privatization of government information say that competition will encourage companies to produce better, cheaper products. Despite the hyperbole, what they are really asking our government to do is to turn over public assets to private interests—to a handful of multinational media conglomerates. To date, privatization has resulted in less access and higher cost for the American public. If we accept the commoditization of information, if we tolerate our government turning over public information functions to private companies, if we institute fees for services, we will diminish the public's right to know: the right to know information about our environment critical to our health ad the future of our planet; the right to know business ad economic information we need to survive in today's global marketplace; and the right to know how to participate effectively in our democracy.

Information itself is not power. Let's not confuse the transmission of data—or facts—with the uses people make of them. Information is simply raw material—a powerful tool. It is valuable only when processed by the human mind. Information is a catalyst—a means to create knowledge or wisdom. Salespeople sell information products. Librarians, on the other hand, help people use information to solve problems. Information is like trust, or love. It becomes infinitely more valuable when shared. Here is where library services have their greatest potential, their force, their vital impact. Here is where information is a critical resource, a public good essential for a humane and just society.

People cannot exercise their right to know unless information is organized and available. None of us can exercise our right to know unless we are intellectually able—and psychologically motivated—to access and use information. The right to know is much more than free speech. To truly have the right to free expression, people need more than Constitutional guarantees; they need societal commitments as well. If you have no job, no education, no money—your voice will not carry very far. You may have the right to know, but if you don't know how to use it—if you're not aware of it—it will do you no good. Books, magazines, ad databases are of little value to people who cannot read. Illiteracy costs this country more than $225 billion annually in lost productivity, welfare payments, crime, accidents, and lost taxes.

We will not live in a true information society unless—and until—we ensure that people have access not only to information, but to cultural content. We will not live in a true information society unless—and until—people have the skills and the resources to use this content. We will not live in a true information society unless—and until—public policy makers recognize that an informed citizenry is a public good that benefits us all. We will not live in a true information society, we will not achieve equal opportunity and justice—unless and until—all people have the library services they need to learn, live, work, participate, and enjoy our democracy.

In conclusion, I would like to bring to your attention 13 issues developed by the American Library Association and its 21 affiliates for this second White House Conference on Libraries and Information Services which we deem crucial to ensure the public's right to know.

These issues are:

I. National commitments of financial resources are indispensable investments in the nation's productivity.

II. Democracy is at risk when libraries are at risk.

III. The future of our democratic society is based upon the education of our youth.

IV. Diversity of library collections, services, and staff is essential to serve people of diverse backgrounds.

V. Culturally diverse people must be recruited to the library ad information profession and must be educated to provide quality library ad information services.

VI. den and equitable access to information in all formats is a linchpin of our democratic society.

VII. Public access to government information, including legal information, is vital to a just society.

VIII. An effective marketing and public relations campaign must be mounted to promote services, increase awareness, and provide feedback to shape new library and information services programs.

IX. Libraries are educational institutions that have a fundamental role in promoting literacy.

X. Materials in all types of libraries are in danger of destruction or disintegration. That must not happen. They must be preserved.

XI. International issues impact American library and information services in a variety of ways.

XII. The roles, responsibilities, and career preparation of librarians and library staff must be better articulated to persons unfamiliar with the myriad contributions both make to our society.

XIII. Implementation of White House Conference resolutions is essential to improve the nation's library and information services.

With your permission, I would like to submit the full text of these 13 recommendations for the record.

On behalf of the members of the American Library Association, I would like to thank you for your thoughtful consideration of our concerns.

THE AMERICAN LIBRARY ASSOCIATION'S RECOMMENDATIONS FOR THE SECOND WHITE HOUSE CONFERENCE ON LIBRARY AND INFORMATION SERVICES

The following issues were developed by the American Library Association (ALA) for the Second White House Conference on Library and Information Services.

An outgrowth of the common agenda developed by ALA and its twenty-one affiliates in 1990, these recommendations were written by two ALA committees working from and adding to the original common agenda statements. These two committees were the ALA Ad Hoc Committee on the 1991 White House Conference on Library and Information Services (co-chaired by Ann Heidbreder Eastman and Bessie Boehm Moore) and an Ad Hoc Committee of ALA's Executive Board (chaired by ALA Past President Patricia Wilson Berger).

The American Library Association hopes that all involved with the Second White House Conference will find these statements useful.

Issue I: National commitments of financial resources for library services are indispensable investments in the nation's productivity.

Background:

—Since the earliest days of the Republic, libraries have been consistent, major contributors to the nation's productivity. Today, libraries remain the information source of first resort for most of our population. Library resources undergird the learning and illuminate the comprehension of children, educators, artists, new Americans, students, scholars, scientists, researchers, lawyers, engineers, the clergy, businesses, governments and industries. Since the late 1800's librarians and libraries have participated vigorously in our struggles to increase national literacy. No other information source has contributed so much to so many for so long.

—At present, an inverse ratio exists between the resources libraries ought to acquire and their financial ability to do so. A single example: many school libraries can no longer afford the books and facilities needed to prepare our children to compete in tomorrow's world.

—New and emerging technologies offer unprecedented opportunities to exploit the riches of our libraries as never before, in order to empower our country's diverse populations and cultures. Today, many libraries serve as electronic gateways to a vast array of information resources, overcoming distance and time to deliver that information to patrons. The proposed National Research and Education Network (NREN) could enhance the benefits of such information delivery practices by multiplying a hundred-fold the resources available to all libraries and their patrons. Such increased access would be especially beneficial to users of public and school libraries, particularly to users of such libraries which serve rural and remote areas of the United States.

—If the United States is to increase its productivity and stay competitive in the world marketplace, then sufficient funds must be provided to assure that libraries can continue to acquire, preserve, organize and disseminate those unique and expensive information resources needed for teaching and research. Several statutes, in particular the Higher Education Act (HEA) of 1965, have provided academic libraries the means to acquire, preserve and share such information resources, resources which are vital to teaching and research. Legislation like the HEA benefits citizens and groups far beyond those on local campuses engaged in specific experiments or studies, because library resources thus acquired are shared with scholars, scientists, and industry everywhere.

—Nationally coordinated, cooperative programs among libraries which provide a common, public body of information about their collections are vital to stimulate the nation's productivity. Libraries create and use bibliographic records of the materials in their collections in two ways: first, to provide access to their resources locally and second, to share that access with library patrons throughout the nation. Such programs as the Cooperative Conversion of Serials program (CONSER) and the National Coordinated Cataloging Program have helped achieve both these objectives. However, funding for such programs has not been sufficient to enable the nation to enjoy their full benefits.

Recommendations:

1. That government and library officials at all levels work together to amass sufficient funds to provide diverse groups and individuals with the library resources they need to meet the challenges of our information age.
2. That, in order to fulfill the democratic imperative to make as much information available as possible to the greatest number of people, delegates to WHCLIS II endorse and Congress fund a National Research and Education Network (NREN) which will include all types of libraries as full partners. Public policy must recognize that, because it results in comprehensive sharing of library resources and widespread, efficient document delivery systems, library networking is as essential to the productivity of the senior in high school as it is to the American industrial worker or the scholar in academe.
3. That Congress recognize it is critical to the national interest to support education and research by fully funding statutes like the Higher Education Act of 1965 and the Library Services and Construction Act.
4. That funding agents, both public and private, provide sufficient support for national bibliographic access programs to enable the nation to realize the full benefit of the information our library collections contain.
5. That Congress increase its support of the Library of Congress to enable that institution to better coordinate national and international cooperative endeavors.
6. That Congress increase its support of legislation which benefits the public directly through public library programs. These programs include services to people with limited access to information, such as rural populations, the disadvantaged, the disabled and those in institutions.
7. That the library community, including library users, library trustees and library advocates, actively participate in the formulation and implementation of a body of broad, comprehensive national information policies. Such policies should articulate the core role of library and information services to the creation of new knowledge and the reconfiguration of old knowledge, knowledge which is central to the productivity of our governments, industries, institutions, communities and our people.

Issue II: Democracy is at risk when libraries are at risk.

Background:

—Information is the currency of democracy. That's a given. Each and every time we tolerate the weakening or the deterioration of our premier information resource—our libraries—we tolerate also pernicious corrosion of our democracy. Over a century ago another U.S. President, James Madison, warned that:

> "A popular government without popular information or the means of acquiring it, is but a prologue to a farce or tragedy: or perhaps both. Knowledge will forever govern ignorance. And a people who mean to be their own governors must arm themselves with the power knowledge gives."

—Corporate America must help develop and nurture a skilled, literate workforce and a productive society by increasing its support and funding for America's libraries.

Recommendations:

1. That coalitions of librarians, library trustees, library associations, library friends and other library supporters work with both the public and the private sectors to advocate, develop and enact stable, reliable funding sources which will guarantee the comprehensive array of information resources America must demand of its libraries, now and in the future.
2. That, to ensure quality library service to our nation's future workers and readers, delegates to WHCLIS II and government officials at all levels increase and expand their commitment and funding for school, public, academic and special libraries.

Issue III: The future of our democratic society is based upon the education of our youth.

Background:

—In February 1990, President Bush and the nation's governors issued a position paper entitled, "Goals for American Education." In it, the President and the governors enunciated specific literacy goals. Attaining those goals by the year 2000 depends in large measure, however, on how well America's libraries can deliver and sustain a broad range of information resources and services.

—The future of our democratic society is rooted in the education of our youth. Today's children and young adults are tomorrow's citizens and leaders. At a time when our nation's illiteracy is soaring and our nation's productivity continues to plummet, we persist in countenancing neglect, not only of our school libraries but also of youth services in our public libraries. The Department of Education's own statistics establish that today, federal support for school libraries is a mere 60% of what it was a decade ago. The situation in public libraries is equally grim. Over 50% of all public library users have yet to celebrate their 18th birthday, yet few of our public libraries can afford the collections and staff required to meet the special needs of the young. Given such a sorry state of affairs, how can we as a nation hope to ensure a literate, democratic productive future for ourselves, our children or our children's children?

—State governments must use their own and federal funds (for example, LSCA, ESEA and Headstart funds) to establish school and public library partnership programs to provide comprehensive library services to children and young adults.

Recommendations:

1. That all schools across the nation have quality libraries for their students and that each be staffed by school library media specialists and support personnel.
2. That public libraries across the nation provide quality programs of service to all individuals, including children and young adults.
3. That funding at the local, state, and federal level be earmarked and increased to provide youth of all ages with quality services, resources, and personnel in school and public libraries.
4. That networks for resource sharing across the nation make materials available to children and young adults in school and public libraries.
5. That government at the federal level provide leadership for school library media programs.

Issue IV: Diversity of library collections, services and staff is essential to serve people of diverse backgrounds.

Background:

—The 1990 Census of the United States established that, during the last ten years, the composition of our population has changed dramatically. For example, between 1980 and 1990, the proportions of our people who are of Hispanic and Asian descent increased exponentially. Moreover, unlike earlier times, these newly emerging majorities are not clustered in large urban centers along our coastlines; they are moving out and settling down in cities, towns, villages and hamlets across the country.

—Both NCLIS and ALA have affirmed that a multicultural, multilingual society is desirable, and that the library and information needs of racially and ethnically diverse peoples often differ from those of other segments of the population. There is clear and compelling evidence that often, the special information needs of new Americans and other minorities have not been anticipated, much less met, by our governments or our libraries.

—At the 1979 White House Conference on Library and Information Services, diverse peoples and their library needs were woefully underrepresented. Moreover, in 1979, Conference Delegates voted down several resolutions which could have strengthened library services to minorities. The nation's diverse library needs demand that in 1991, that history not be repeated.

—Programs must be developed and implemented promptly to assure that, by the year 2005, the number of minorities and emerging minorities enrolled in library and information science programs and/or employed at all levels in our libraries and information centers will reflect the diverse composition of the U.S. population.

—Governments at all levels must recognize and honor their affirmative obligation to provide equitable library services to cultural minorities by organizing and funding efforts to identify where and what service and resource inequities exist and by developing and funding strategies to correct those inequities with all deliberate speed.

Recommendations:

1. That governments and the library community work to eliminate barriers, including language and fee barriers, to library and information services.
2. That librarians and their governing bodies insist that programs for resources and services to all segments of the population be funded equitably, with "hard" monies, and that they be included in the libraries' bedrock, basic budgets for resources and services.
3. That librarians, library educators, library associations and funding agents recognize and honor their affirmative obligation to recruit, support, educate, train and retain librarians and library staff representative of all elements of our society.
4. That elected officials in the states and territories assure the participation of minorities in all aspects of library governance by appointing them in representative numbers to the governing boards of state and public libraries.
5. That delegates to WHCLIS II affirm their strong and unwavering support for library programs designed to meet the special needs of the nation's cultural minorities by lobbying federal, state and local officials for greater attention and funding to meet those needs.

Issue V: Culturally diverse people must be recruited to the library and information services profession and must be educated to provide quality library and information services.

Background:

—At the present time, cultural minorities and emerging majorities represent only 10% of librarians in the workforce. From 1978 to 1989, the number of minority students graduated from ALA accredited programs shrank by 50%, from 451 in 1978 to 226 in 1989. Moreover, the number of minority students who enroll in college after high school remains disproportionately low.

—Members of minorities who work in libraries continue to be employed in clerical and lower paid paraprofessional jobs, jobs which offer limited opportunity for advancement.

Recommendations:

1. That the states, territories and the federal government pass legislation and develop policy initiatives which will establish stable, full funding to recruit and educate, in representative numbers, professional and paraprofessional library staff from minority and emerging majority sectors of the population.
2. That funding agents in both the public and private sectors increase their support of fellowships and scholarships for minority library students, and that li-

brary schools actively recruit and hire faculty and staff from cultural and ethnic minority and emerging majority sectors of our population.

3. That libraries and their governing bodies designate funds to train library staff on valuing cultural differences and to develop multicultural library resources.

Issue VI: Open and equitable access to information in all formats is a linchpin of our democratic society.

Background:

—An educated, informed citizenry is paramount to our democracy. To the extent that we tolerate barriers to an informed citizenry, we tolerate the destruction of our democracy.

—Reading is the first defense of democracy; libraries are its second defense. Without libraries, the professions, trades, students, researchers, businesses, industries and governments will not and cannot prosper or even progress.

—The freedoms to read, to view, to speak and to listen and to use libraries without compromising privacy rights constitute the very core of our society. Attempts to restrict those freedoms in any way threaten our most basic liberties and therefore democracy itself.

—Librarians and library staff are obliged to protect and to support the intellectual freedom rights of all persons using the library. Librarians and library staff must insist that individuals be able to obtain and use information in complete privacy. Therefore, records of a library patron's reading preferences must not be available for outside scrutiny. Forty-four states and the District of Columbia have enacted laws guaranteeing the privacy of these records.

—Governments, libraries and their governing bodies are obliged to assure that disabled persons, the institutionalized, older adults and other special populations enjoy open, equitable access to the nation's libraries.

Recommendations:

1. That librarians, library staff, library trustees, library supporters and government officials at all levels recognize they share an obligation to assure that fees for library resources and services do not constitute barriers to any individual's access to those resources and services.
2. That Congress and the states recognize the right of the American public to access the works of all authors, artists, scholars and politicians, whether domestic or foreign.
3. That delegates to WHCLIS II affirm the principle that regulations for the importation and for the exportation of information and data across borders should not be used to suppress information access, and that the delegates ask the President and the Congress to affirm this principle.
4. That the delegates to WHCLIS II endorse ALA's Library Bill of Rights.
5. That delegates to WHCLIS II commend those states that have already enacted laws protecting the privacy of library records and that the delegates strongly urge those states that have not passed such laws to do so.
6. That Congress increase LSCA funding in order to hire interpreters, purchase special equipment for disabled persons and renovate library facilities to make them more accessible to special populations.
7. That Congress fund programs to establish and improve public libraries in rural areas; assist in the construction of libraries; provide for interlibrary cooperation and resource sharing projects; improve library services for Native Americans; literacy programs; and programs for special populations like those available from the Library of Congress's National Library Service for the Blind and Physically Handicapped. Similar programs should be made available to the hearing impaired through a comprehensive national program.
8. That, where appropriate, Congress include librarians and libraries in legislation addressing the needs of older adults and persons with disabilities.
9. That Congress allocate monies to libraries to implement the Americans with Disabilities Act (ADA).

Issue VII: Public access to government information, including legal information, is vital to a just society.

Background:

—Equitable, equal and open access to information and ideas is a cornerstone of our democratic society. The public's right to access information collected and generated by the federal government is embedded in such statutes as the Printing Act of 1895, the Depository Library Act of 1976, the Freedom of Information Act of 1966, the Privacy Act of 1974 and the Electronic Communications Privacy Act of 1986.

—Since the early 1980's, a series of edicts, restrictive interpretations of extant laws and cuts in budgets for federal information have combined to erode not only public access to information by and about the federal government but also the very breadth, scope, and availability of such information. Often, government policies have culminated in the privatization and commercialization of government libraries and government information products; curtailed collection of statistical and technical data; undue restrictions on unclassified information; cumbersome restraint on scientific communications; narrow interpretations of the Freedom of Information Act; violations of the provisions of the Privacy Act; and establishment of unwarranted prepublication review procedures for federal employees and researchers.

Recommendations:

1. That federal information products in all formats be distributed to U.S. depository libraries free of charge so all citizens may enjoy open, free access to them.
2. That Congress and the President take appropriate actions to:
   a. Affirm a policy of free and open access to information by and about the U.S. government;
   b. Restrict no information on the basis that it is "sensitive but unclassified";
   c. Curtail the inappropriate classification of government information when such classification limits severely the public's access even when national security interests are not at risk;
   d. Limit the role of the Office of Management and Budget in controlling information collected, created, and disseminated by the federal government;
   e. Assure that adequate funds are available for the creation, production and dissemination of government information to the public;
   f. Ensure that the ability to pay does not determine who gains access to government information;
   g. Assure that there is equitable, equal and ready access to data collected, produced, and published in any format by the government of the United States;
   h. Ensure that policies relating to public access to federal information recognize that government information should be disseminated in whatever format is most appropriate, cost-effective, and useful for government agencies, libraries, and the general public;
   i. Instruct U.S. executive agencies to inform the public ahead of time of plans to discontinue or alter significant publications; and
   j. Direct the Office of Management and Budget to remove libraries from its list of commercial activities and products to be contracted out to the private sector.
3. That federal agencies disseminate electronic government information to the public complete with the software, indexes, and documentation needed to facilitate its usefulness.
4. That neither Congress nor the Executive Branch denigrate the role of the government by elevating the role of the private sector at the expense of the public.
5. That Congress pass legislation that will ensure the availability of the emerging telecommunications technologies at preferential rates for the dissemination of educational and library information.
6. That the states and territories implement fully the federal government's depository library laws to ensure that information from the federal government is free and readily accessible to the public.
7. That depository library laws be enacted in those jurisdictions which do not already have them.
8. That Congress affirm the principle that government information is in the public domain.

Issue VIII: An effective marketing and public relations campaign must be mounted to promote services, increase awareness, and provide feedback to shape new library and information services programs.

Background:

—In many communities across the United States, libraries have a low profile. As a result, the public may be unaware of the services libraries offer.

—Often, nonusers and the underserved do not know that libraries can help them cope with conditions they must endure.

—Today, librarians realize that if they are to have adequate support for library programs their needs must be recognized by library users who will help persuade those who fund libraries of the importance of quality library resources and services.

Recommendations:

1. That libraries design and implement programs to promote the use and support of libraries nationwide.
2. That the following organizations develop aggressive national public relations campaigns for all types of libraries:

    a. state and territory libraries and archives;
    b. state and territory library associations;
    c. state councils of higher education;
    d. state educational media associations;
    e. chief state school officials;
    f. providers of state and local library and information services; and
    g. state and local library friends, national library associations and other advocacy groups.

3. That library recipients of state or federal funds be encouraged to develop effective promotional programs to advertise the services supported by those funds.
4. That community organizations assimilate local libraries into broad-based community public relations and marketing efforts.

Issue IX: Libraries are educational institutions that have a fundamental role in promoting literacy.

Background:

—Since the earliest days of this century, libraries have been and remain staunch advocates of the right to literacy for individuals of all ages. Librarians recognize that illiteracy is a corrosive problem which contributes to many of our major social and economic ills.

—Library literacy activities include: (1) preparing and disseminating print, audio, visual, and electronic materials to help barely literate adults increase their literacy skills; (2) helping adults reach higher thresholds of functional literacy; and (3) providing family literacy programs and resources.

Recommendations:

1. That governments target state and federal dollars for literacy support.
2. That White House Conference delegates encourage librarians to become partners with other literacy advocates to create comprehensive literacy services and support for persons of all ages and that those libraries that are already undertaking such activities be commended for doing so.
3. That librarians, including state librarians, and library supporters continue and expand their efforts to increase national literacy especially in the area of family literacy, and that government officials at all levels support such efforts by providing sufficient funds for their continuation and enrichment.
4. That lawmakers amend laws and regulations affecting public libraries to include requirements that public libraries be designated and funded as resource centers for basic literacy materials for preschoolers through adults.
5. That librarians and their supporters oppose all legislation and regulations which restrict the rights of citizens who speak and read languages other than English.
6. That federal legislation be enacted to fund family literacy programs that involve public libraries.
7. That literacy programs funds authorized under the Elementary and Secondary Education Act and the Library Services and Construction Act, Title VI be continued and increased.
8. That Congress pass and fund the National Literacy Act.
9. That increased training, continuing education, and graduate specialization opportunities be provided for librarians through HEA Title II in the areas of literacy, adult education, and English as a Second Language programs.

Issue X: Materials in all types of libraries are in danger of destruction or disintegration. That must not happen. They must be preserved.

Background:

—The challenge of preserving the nation's library collections is daunting. Many invaluable materials, purchased with public and private funds, are endangered. Poetry, history, genealogy, folk tradition, music scores, videotapes, photographs, microfilm, electronic formats—all are affected. Paper is disintegrating, photographic images are fading, and films are losing sound tracks and color. Future access to the ideas, knowledge and wisdom of the past and to the information of the present, will not be possible unless we take measures to preserve such national treasures now.

—Preservation plans for library collections must include development of disaster plans so that libraries can recover from natural or perpetrated catastrophes, such as fires, floods, hurricanes, and war.

—Without library collections, access to information is diminished; without access to information, education and the generation of new knowledge diminish and ultimately disappear.

—Library materials must be constructed of materials which assure that they will be useful and can be used over extended periods of time. They must be free from destructive substances and must be designed for an extended useful life. For publications of enduring value, all publishers, including governments and international agencies, should use paper that meets ANSI Standard Z39.48, as revised. Enduring binding materials are also essential. More research must be conducted on non-paper library materials to determine how to assure their usefulness over time.

—Public Law 101 (October 12, 1990), "Permanent Papers of the United States: Preservation," establishes as national policy that "Federal records, books, and other publications of enduring value be produced on acid free permanent papers." In addition, it urges private publishers and state and local governments to follow suit.

Recommendations:

1. That to ensure that our library collections survive, the nation's library and user communities build a case for legislative and funding efforts for a comprehensive public/private research program designed to address our more pernicious preservation problems.
2. That each state and territory develop a plan for disaster recovery by its libraries and for the preservation of its library and archival materials in all formats.
3. That in preparation for the development of these state and territory plans, individual librarians complete and submit to their respective states and territories assessments of their specific library's disaster vulnerabilities and library preservation/disaster recovery requirements.
4. That the federal role in the preservation of library materials not be restricted to preservation of only those collections in such federal institutions as the Library of Congress and the National Archives but include also assistance for the preservation of materials in other collections which are of major historic significance.
5. That support for library preservation extend to all formats of library materials, including materials in electronic media.
6. That for publications of enduring value, the library community insist that publishers use paper that either conforms to ANSI Standard Z39.48, as revised, or that meets equivalent international standards.
7. That the library community, in cooperation with archivists, urge the states and territories to join those that either have already passed legislation requiring the use of alkaline paper for official publications or have appointed commissions to draft such legislation.
8. That the United States library community strongly support the efforts begun by the International Federation of Library Associations and Institutions (IFLA) and the International Publishers Associations (IPA) to promote the use of alkaline paper for publications issued by other countries.
9. That for non-paper materials, research and testing be conducted to determine how to increase the materials' usefulness over time.

Issue XI: International issues impact American library and information services in a variety of ways.

Background:

—U.S. library and information services are affected by events and practices in other countries. The federal government recognizes this circumstance and has responded by developing a variety of initiatives, such as establishing United States Information Agency (USIA) libraries in other countries; including literacy efforts in Agency for International Development (AID) programs for developing countries; initiating myriad publications exchange programs with foreign institutions, libraries and governments; and supporting international information conferences, treaties and protocols.

—U.S. library and information science associations, such aS the American Library Association, participate in the meetings, conferences and governance of such international organizations at the International Federation of Library Associations and Institutions (IFLA).

—Many international objectives of U.S. libraries are only realized after action taken in this country is reinforced by multilateral action by an international body, such as the UN's UNESCO. Since 1983, however, the U.S. has chosen to neither participate In nor support UNESCO's efforts and programs even though UNESCO projects for literacy, libraries, and education are often far less costly than direct U.S. aid and UNESCO's conventions on education are effective instruments to further the international exchange of knowledge.

Recommendations:

1. That the White House Conference Delegates urge the President to reinstate the United States in UNESCO; that the USIA overseas libraries and the USIA's Fulbright program be strengthened; that the adherence of more countries to international copyright conventions and to the Florence Agreement and its Protocol be promoted by the U.S. government and by U.S. library and publisher associations.
2. That U.S. library and information organizations support strengthened international programs such as those of IFLA and of the International Standards Organization.
3. That all segments of the library and information community as well as appropriate federal agencies support and encourage efforts to improve data flow across national borders.

Issue XII: The roles, responsibilities and career preparation of librarians and library staff must be better articulated to persons unfamiliar with the myriad contributions both groups make to our society.

Background:

—Many people are confused about what librarians and information specialists do. Moreover, job titles such as "information broker," "media specialist," "information officer" and "communications coordinator" do little to dispel that confusion.

—Over the last 20 years, the dimensions and complexities of both the library profession and libraries have increased in numbers and kinds. Now more than ever, people need qualified information professionals to help them sort out and respond effectively to the complex demands of our information age. Governments, institutions and organizations need to acquire and create expanding arrays of information; therefore, they must rely on the knowledge and skills of information specialists to design, develop, manage, operate and evaluate complex information constructs.

—While professionally educated librarians are key contributors to the creation, manipulation and storage of information, a library's success depends also on the expertise of other types of professionals, and on the competencies of support staff as well. All are essential to achieve quality library and information service.

—The demands of our information age continue to increase, yet federal and state support of our library and information infrastructure continues to decrease. Last year, for example, the federal government allocated (in constant dollars) exactly one-fourteenth of what it allocated in 1969 to support graduate studies in library and information science.

Recommendations:

1. That the library community, including library trustees, friends groups and other library advocates place a high priority on increasing the public's awareness of the roles, responsibilities and contributions of librarians, library staff and libraries to our society.
2. That federal and state governments acknowledge their responsibility to support quality education, which is a keystone of our information age, by supplying increased funding for library and information science fellowships and assistantships.

Issue XIII: Implementation of White House Conference resolutions is essential to improve the nation's library and information services.

Background:

—Fifty-five of the 64 resolutions passed at the 1979 White House Conference have been implemented in whole or in part and an independent advocacy group, the White House Conference on Library and Information Services Task Force (WHCLIST), was established by some of the Delegates to that first Conference. Since 1979, library trustees have worked actively for the convening of a second conference. Friends of Libraries U.S.A. (FOLUSA) and statewide advocacy organizations, as well as local Friends of the Library groups, were either formed or strengthened after the first White House Conference. In the intervening years, these groups and individual advocates have made significant contributions to the improvement of library services and have worked to secure legislation and funding for individual libraries as well as for the second White House Conference.

Recommendation:

That in implementing the White House Conference recommendations, ALA and other local, state, regional, and national library associations encourage and support the advocacy efforts of the White House Conference on Library and Information Services Task Force, trustees, Friends of Libraries U.S.A., and other library advocates along with the efforts of library and information professionals.

Senator PELL. We'll now turn to Mr. Enrique Luis Ramirez from San Francisco, CA.

Mr. RAMIREZ. It is a pleasure to speak to you on behalf of adult literacy students through the United States.

I learned how to read 5 years ago. I was never able to use a library. It was very exciting when I first went to the library and received my first card and checked out my first book.

Libraries helped me a lot. They helped me to be able to read to my son, who is the most important thing in my life. When he was 3 years old—excuse me, because I am breaking down—when he was 3 years old, I would push him away, and I knew that this was not what being a father was all about. And it hurt. It hurts a lot. [Pause.]

Senator PELL. Don't you worry. We all know what it means to you.

Mr. RAMIREZ. It is a very important issue. There are thousand of people in our country who cannot read, who can't write, who can't even read a bedtime story to their kids.

I know the United States is a place where dreams come true. I had a dream come true. I have a really good job. I have a lot of support at work, and I have a lot of support at home. And now I am able to read a book to my son, and I am able to read a book to my daughter, and to be a role model to my son as he is going through the school system.

My son has received awards in reading because I have set a role model for him in reading.

That is all I have to say.

Senator PELL. Well, you have said a great deal. [Applause.] You said a great deal, Mr. Ramirez.

Thank you very much.

[The prepared statement of Mr. Ramirez follows:]

PREPARED STATEMENT OF MR. RAMIREZ

It is a pleasure to speak to you on behalf of adult literacy students throughout the United States. Until I learned to read at the age of 28, I was not able to use my local library. I was really excited when I got my first library card and checked out my first book. It was even more exciting when I read my first bedtime story to my son. Now I'm able to do the same with my three (3) year old daughter.

I got help to learn to read at my library. Library literacy programs are changing not just my life, but thousands of others throughout the United States. I strongly urge Congress to help fund volunteer literacy programs in libraries throughout the country. This is a cost effective way to address literacy problems in the workplace and the loss of our competitive edge in the global marketplace. Literacy makes good sense not just at work, but also at home.

My son, when he was three years old, was the main reason for me to seek help. He would ask me to read bedtime stories to him, but because I could not read, I would push him away angrily by saying "I don't have time". As he left the room, I could see his eyes water and a lump would grow in my throat and my heart would ache. I knew that this was not what being a father was all about. Not long after that I saw an ad on TV about a free reading program at the San Francisco Public Library. I went in for an interview and was tested as reading at the third grade level. In addition to wanting to read to my son, I wanted to study to pass my GED and get a better job.

Many people ask me the same question, "Why didn't you learn to read and write?" When I was in third grade, I was put in a class for oddly speed reading. The class was held in a large auditorium with an elderly teacher. She was not able to control the kids so we didn't learn the skills she was teaching us. I had this same reading teacher for the next three years. When I graduated to 7th grade, I joined the track team and was placed in classes for slow learners. I was assigned a tutor who did my homework for me so that I could stay on the track team. I did well as a runner and was encouraged to focus on training for the Olympics. But suddenly, in the ninth grade, I injured my leg and my dreams were shattered. By the eleventh grade I was so discouraged I just stopped going to school. Without completing school, I enrolled at a local college to study architecture and improve my reading skills. The classroom setting didn't work for me and I dropped out and went to work at low paying jobs.

Once I enrolled in the library's literacy program, I began to feel good about myself. I moved to South San Francisco and continued improving my skills by going to Project Read at the South San Francisco Public Library. At present I am quite active in all aspects of the program. The strengths of Project Read are numerous. I find that there is always plenty of support available. I attend discussion groups and participate in varied activities with other adult learners. This program's advantages include one on one tutoring and flexible hours. When goals are reached, I not only feel self-satisfaction, but receive positive reinforcement from those I work with.

The only weakness I can see in the program is the lack of public awareness which could be achieved through more television and radio campaigns. Many non-readers are hesitant to seek help because they are afraid, embarrassed or fear that there is a charge for this program. Many good readers don't know that there is a program available where they can offer their skills to help someone else learn to read.

Since I began working with a personal tutor, there have been many positive changes in my life. I have obtained a well-paying and stable job at United Airlines so that I can provide for my family and future. I have taken time off from my work to help out my literacy program and to help promote awareness of need for free programs like this at work and in the community. I have served on the California State Joint Task Force on Workplace Literacy. I have been a founding member of the New Reader Council of the Bay Area, helped plan the first Adult Learner Conference of the Bay Area in 1989, and have taught numerous workshops to other new readers on public speaking and starting student groups.

In summary, libraries have a unique role in helping teach adults to read and write. Working with a personal tutor makes all the difference. Many people cannot learn successfully in adult school classes.

Libraries can use community volunteers to provide a very needed and valuable service.

I hope my testimony speaks to you about how important it is for libraries to provide help for people like me. Without this program I would never have taken my son to obtain his first library card.

Now I read to him and my daughter all of the time without being afraid or embarrassed. My son reads to me and to his classmates and has received high marks in reading and writing. I think I have been able to model how important reading and writing is to my son.

Senator PELL. We'll turn now to Robert Wedgeworth, who is dean of the Columbia University Library School.

Mr. WEDGEWORTH. Thank you, Mr. Chairman.

There are just a few points that I'd like to make, summarizing my testimony for the record. First of all, during this White House Conference as we consider the future of library and information services, I'd like to remind us all that America's libraries owe only a part of their success to the great collections and great institutions that we have developed. We have had the absence of the ravages of war, as some of our colleagues who are observing this conference from Western Europe, for example. But our chief strength has been the development of a cadre of professionally educated librarians, information professionals and archivists who have developed these institutions, their collections, and who manage their services.

But at a time when we increasingly recognize that information functions and information services are more important than they have ever been in the history of our country, there is little agreement that information professionals, librarians and archivists should be more important.

Since my days on the staff of the late David Jonah at Brown University and the last White House Conference when we sat here, we have lost significant capability for the education of librarians and information professionals. This education has become more expensive because we have to reflect in our training programs the technological environment that is in existence in the field. We need audiovisual media laboratories, we need microcomputer laboratories, we need access to the computerized databases. We also need in some instances paper chemistry labs to teach the conservation of existing collections.

We have lost research capability. Of the 52 accredited graduate library education programs in the country, only 23 have doctorate programs. Those 23 have very low enrollment in those programs primarily due to the lack of financial aid. This means that we produce less than 50 doctorates a year in our field to satisfy the needs of our faculties across the Nation and to satisfy the research needs for the field.

Those programs are poorly distributed geographically—none in the Mountain West, for example. This enormous potential that we see for the future of library and information services cannot truly be realized unless we invest in the next generation of library and information professionals. I have two recommendations that I want to mention briefly here.

First, we would like Congress to encourage the national commission and the secretary of education to establish a temporary commission to study the research and training needs for our field and to put forth a strategy for meeting those research and training needs.

Second, we would like the Congress to establish the means for a national library corps, with great emphasis on librarians to assist in attacking illiteracy in this country, with great emphasis on librarians to assist in supporting services to our multicultural populations, and with great emphasis on librarians who can assist in the re-education and the job career changes to make us a more productive working society.

I thank you for your attention and for the opportunity to present these recommendations to you today.

Senator Pell. Thank you very much, Dean Wedgeworth, and you can be sure those two proposals will be considered by us.

[The prepared statement of Mr. Wedgeworth follows:]

PREPARED STATEMENT OF MR. WEDGEWORTH

My name is Robert Wedgeworth and I am the Dean of the School of Library Service, Columbia University in the City of New York. I am pleased to have been asked to present testimony bearing on the status and condition of library and information services in support of literacy, productivity and democracy. During my thirty years as an academic librarian, library association executive and library educator I have been privileged to bear witness and to participate in developments that have completely revolutionized libraries and librarianship in the United States.

The changes that occurred during this period are rivalled only by the changes stimulated by the philanthropy of Andrew Carnegie and his foundation between 1886 and 1923 that created the modern library movement by establishing public libraries and academic libraries in many communities across this nation. Arguably, no other philanthropic act in the history of our country has had such a lasting effect on the lives of the American people at the grass roots level.

The more recent period of change has been called the "quiet revolution", for unlike the Carnegie period the changes have been less visible, but dramatic in impact. Thanks in part to the provisions of the Library Services Act, Library Services and Construction Act, Higher Education Act and the Elementary and Secondary Education Act, libraries have been transformed from local collections of primarily printed materials to a nation-wide network of multi-media collections and information services connected electronically and capable of serving each individual as if they were on site at the Library of Congress.

Few are aware that materials delivered to a high school student in Brooklyn for a science fair project may have been obtained from the libraries of MIT or Cal Tech. Fewer still are aware that some of the largest computer installations outside of the Pentagon do nothing but record and transmit information on the holdings of libraries 24 hours a day. This vastly expanded capability for delivering library and information services to the nation is the captive of no ideology. The information products and services in many different formats (books, journals, film, audio and video tape, cassettes or disks, computer files, etc.) it provides are drawn from commercial sources, government agencies and non-profit organizations all over the world. It is truly a basic arsenal of democracy as it allows the individual user to freely choose that which is of interest when it is timely.

During this hearing you will hear more about the specific capabilities of the several types of library and information service organizations. What I would like to concentrate on for the limited time available is the human resources element.

In monitoring the status and condition of libraries and librarianship as it occurs all over the world, the one element that is perhaps unique to the United States and Canada is the quality of their librarians. Our communities have grown up together sharing goals and standards from the very beginning.

The Carnegie philanthropy actually did two things. First it established libraries and secondly it established formal professional education programs for those who would manage the new organizations. During the most recent period of change nearly all of the emphasis has gone into transforming libraries technologically. Less than 1% of the total funding of all of the major federal library funding program was invested in education and training. Despite the positive impact of the few HEA Title IIB Fellowships, we are now looking at projections of major shortages of librarians, specifically in the area of children's and school services. At a time when libraries can make the greatest contribution toward stemming the growth of functional illiteracy, they find themselves short of staff to effect such programs.

In New York State where we have the largest concentration of library schools in the nation we barely enroll 1,000 students in all of our graduate library education programs. As information services expand beyond the walls of libraries there is increasing competition for graduate librarians. At Columbia more than a third of our graduates find initial employment outside of libraries. While we value these new opportunities for our graduates we also realize that special libraries and information centers also depend on established libraries to supplement their information resources. Unless we protect the core of our nation's library and information services, it will erode our capabilities for supporting literacy, productivity and democracy.

Library education since the last White House Conference has become a more expensive education. The range of audio, video and computerized information services available dictates a technological environment unlike that which was common when I came into the field. In addition to media laboratories and microcomputer laboratories, some of our programs need laboratories for the research and study of paper chemistry and the preservation of other types of library materials. More importantly, of the 52 accredited graduate library education programs, only 23 offer the doctorate. Their meager output of less than 20 graduates annually must be shared with the field as many of them are recruited to head our major institutions. The limitation on the number of doctoral students is clearly the availability of financial aid. At Columbia we have typically enrolled six to eight new doctoral student each year. Of these only four can usually attend full-time as we can only offer four Teaching Assistantships. During the past six years we have had only one post-Masters fellowship under the HEA Title IIB program. The limitations on financial aid inhibits the growth of doctoral programs which in turn limits the pool of potential faculty and researchers available at a time when the field is at its most complex level.

The geographic distribution of graduate library education programs is such that large regions of the country are not served by any program. While it would be desirable to see programs in unserved areas, what is more reasonable would be to encourage the stronger programs to develop more distance learning opportunities that could deliver high quality education to those areas that need and want it. Since distance education capability involves an initial investment not likely to be amortized in the short run by increased enrollment fees, a national strategy and assistance in developing distance learning capability would be a nationally significant investment.

Conventional wisdom would have you believe that technological advances will reduce the need for libraries and librarians. Despite the dramatic changes that have occurred in the field across the nation the image of the institution and its professional staff is one of old technologies and outdated services. I would assert that there will be an even greater need for libraries and librarians in the future than there is today.

First, the growth of information products and services available to potential users exceeds the ability of any individual, family or even business or government agency to be self-sufficient. Delivery to the home or office via electronic means does not eliminate this problem, instead it compounds it by spreading the services of librarians and other information professionals even thinner.

Second, every effective program aimed at promoting literacy or democracy of which we are aware has a grass roots component in each local community. We are all aware of the enormous burden being placed on the nation's schools. Yet, in each community across the nation there are impressive information resources that can be brought to bear again on promoting literacy and democracy as they were for immigrant populations during the early part of this century. Typically, schools are open five or six hours daily Monday through Friday. Libraries, funded normally, are open nights and weekends. Given the enormous demand for resources in the fight for literacy, there is a pressing need to make more effective use of library capabilities.

Libraries in America owe only part of their success to the generous support for the development of outstanding collections and services and to their isolation from the ravages of war that has destroyed many of the great libraries throughout history. Librarians in the United States are not inherently more intelligent than their colleagues in other countries. What is truly special about librarians in this country is that they are the products of over one hundred years of professional education that has established a tradition of cooperation and service unequalled anywhere else in the world. It is that training and tradition that made possible this latest revolution that encourages the sharing of resources between and among institutions.

The fragility of graduate library education due to its limitations in size and geographic coverage, the challenges of incorporating ever more expensive technologies into its research and training programs threaten the future of library and information services freely available to all citizens regardless of age, ability or wealth. I hope that these hearings and the White House Conference voice strong support for a concerted strategy of renewal for these institutions and individuals dedicated to preserving access to information for all. Thank you.

Senator **PELL**. Dr. Lotsee Patterson represents the Native Americans, from Norman, OK.

Ms. **PATTERSON**. Thank you, Senator.

I am a member of the Comanche Tribe and am an associate professor of library science at the University of Oklahoma. I am here on behalf of over 500 Native tribes and villages representing more than one million Native people living on Federal reservation lands.

I thank you for the opportunity to be able to express our needs to you. You have my written testimony before you, which gives you some background on the need for information services to Natives and reservations, but I would like to add that only one who lives on a reservation, 170 miles from a library, could truly tell you what it is like to never have access to a library. And I hope that at some point you can visit some of those reservations and see for yourself, because only that will really tell you what the need is.

I would like to emphasize that Native Americans have a unique relationship to the Federal Government as sovereign nations, and it is only the Congress that can fully address our needs.

To illustrate that point, we have no tax base to support library services on reservations, and in many instances tribes cannot ask for State support. I am sorry representatives is not here, because I am told that in the State of Montana, the attorney general has ruled that tribes cannot get any State money, nor can they get Federal money that flows through the State.

I am told there are other States that have the same ruling. So tribes who do not have a tax base, who cannot go to the State for help, are left only to look to you for assistance for library services.

In my written testimony, I am asking that you develop a Federal policy for library services to Native Americans that can address the needs of the Native population.

I would be happy to answer any questions or to assist you in any way in the future, and I very much appreciate your attention to this.

Senator **Pell**. Thank you very much indeed, Ms. Patterson. We'll take your suggestions, as we will all the suggestions, very seriously.

[The publication entitled "Trails, Final Report, Training and Assistance for Indian Library Services," submitted by Ms. Patterson, is retained in the files of the committee.]

[The prepared statement of Ms. Patterson follows:]

Prepared Statement of Ms. Patterson

I am Lotsee Patterson, Associate Professor of Library and Information Studies at the University of Oklahoma.

For more than twenty years I have worked in a number of ways to educate and train Native American librarians and to develop library and information services on Indian reservations. Using that experience as a background I would like to offer the following overview and list some issues with recommendations that address the library and information services needs in Indian country. My remarks will be directed at what might be called public library services and does not include those provided K-12 schools on or near reservations.

Statements presented in this testimony are based on information gathered from a number of sources as well as personal experience over the past 20 years. The dates and sources of the information include:

—1979—A national survey of Indian tribes to assess library needs. Results publication in *Library Trends*, Fall, 1980 in an article entitled, "Public Library Services to Native Americans in Canada and the Continental United States."

—1986—Questionnaire to assess library training needs to all tribes. Results published in *TRAILS Newsletter*, University of Oklahoma, Fall, 1986.

—1991—National survey of all tribes to gather information about public library services provided to and for Native Americans. The National Commission on Library and Information Services (NCLIS) designed and conducted the survey. Results were presented at the Native American Pre-White House Conference on Library and Information Services.

—1991—Resolutions of the Native American Pre-White House Conference on Library and Information Services.

—1991—Draft document entitled "Strategic Plan for the Development of Library and Information Services to Native Americans" developed by staff at the U.S. National Commission on libraries and Information Services (NCLIS).

—1968-1991—Personal experience working with Native people including directing six federally funded year long library research and demonstration projects funded under Title II B of the Higher Education Act and the National Endowment of the Humanities. Directing one national program to provide technical assistance and training to all tribes (TRAILS) and serving as a consultant to a number of Universities, state library agencies and other organizations in the areas of training Native librarians and developing library services on reservations.

All of these sources and my experiences point to the same basic conclusions regarding library services on reservations. They are (1) all Indian tribes and Native villages desire library services and (2) there is an appalling lack of funds and resources to do so. The areas of identified needs can be broken into broad categories. They are:

—*Personnel*—staff in most libraries that serve Native people have little or no formal education or training in librarianship.

—*Funding*—most tribal libraries have no steady source of funding. Approximately 180 of the 500 or so eligible tribes/villages apply for the Basic Grants of approximately $3,000 available from Title IV of LSCA. Others know this sum is too little on which to operate a library and therefore see no need to apply. Most tribes can not afford to fund libraries from their meager budgets. Some tribes, for example the Navajo budget for library services on their reservations but what they expend amounts to only about 7 cents per person. Their service area includes 26 thousand square miles in three states and more than 170,000 people living on the reservation.

—*Materials*—collections in most tribal libraries are sparse, out- dated and sadly lacking in appropriate resources.

—*Facilities*—although LSCA special projects grants have made a big difference in a few tribes by providing funds for new buildings most tribes use any space they can find to house small collections.

—*Services*—due to lack of trained staff, inadequate facilities and few material resources library services that most urban patrons expect from their public library are non-existent on reservations.

The needs of tribal libraries have also been well documented in hearings held around the country by NCLIS. In addition, barriers to adequate library service such as distance (in a number of cases, more than 100 miles to a library facility), limited transportation and limited hours of operation were noted as adding to the problem of providing adequate library service. It should also be pointed out there is no tax base on a reservation to support libraries as there is with most public libraries and generally there is not state money available on reservations. With these issues in mind, I propose an action agenda built around three broad areas for the Congress to address legislatively in order to provide Native Americans living on reservations with adequate library services. I further propose that this be done by developing a national policy for library services for Native Americans as part of the federal government's trust responsibility.

PROPOSED ACTION AGENDA

ISSUE: Education/training of staff

RECOMMENDATION:

A technical assistance and training center be established to provide on-going educational opportunities for Native staff. The former TRAILS program could be used as a model (a copy of the TRAILS final report is attached). Institutes, research and demonstration projects, and fellowships for Native people be reestablished as a priority under current HEA Title II-B guidelines.

ISSUE: Funding

RECOMMENDATION:

That Congress provide a continuous, long term funding source either through amending current legislation (LSCA Title IV) or through new initiatives so that tribal libraries have a dependable source of funds on which to develop their library.

ISSUE: Administration/Management

RECOMMENDATION:

That a National Indian Library Technical Assistance Center much like the short lived TRAILS program be established on a permanent basis. The role and function of this center would be:

—To assume a leadership role in the development of library services on Indian reservations.
—To coordinate planning with state library and federal agencies.
—To provide training through workshops using on-site, distance education or other delivery methods.
—To collect data and conduct research relevant to the information needs of Native Americans on reservations.
—To advocate development and improvement of Indian libraries to assure quality library services.
—To publish a newsletter for distribution to all Indian libraries as a communication devise in order to keep Native librarians informed on current issues.
—To create and maintain a MARC-based file of bibliographic records as a resource for a Union catalog of all tribal library holdings and to use as a data file for extraction of records to be used in retrospective conversion, card production, and ongoing additions to local online data bases.
—To lower cost and increase efficiency by negotiating agreements with vendors and other information providers.
—To orchestrate cooperative projects with tribal leaders for collection development, technology utilization and promote more effective, more efficient service.
—To develop a network linking all Native American libraries in order to provide access to information or users.
—To use commercial datebases in order to identify, extract and deliveries information to users on reservations.

Further rational to support the development of a federal policy for library service to Native Americans can be made by pointing out that the well being of Native Americans in Indian country is based in part on their literacy and productivity. This requires that they be afforded the same access that other citizens have to current, accurate information and to interesting, informative and up-to-date reading materials.

Similarly, life long learning through access, retrieval and skillful use of available information is fundamental to productivity. Information is needed to make good decisions. Good decisions lead to problem solving and improve the ability of both tribes and individuals to participate more fully in economic development. Information resources and services provided by a good library and a well trained librarian can contribute significantly to increased productivity.

In conclusion, I urge you to consider the development of a National Policy addressing the fundamental issues of tribal library services. Thank you for the opportunity to testify before you today. I will be happy to answer any questions you may have and to assist you in any way I can in the future.

Senator **Pell**. We now come to Laurence Reszetar, chairman of the White House Conference Youth Caucus. Welcome.

Mr. **Reszetar**. Good morning. My name is Laurence Reszetar. I am 14 years old and entering 11th grade at Severna Park Senior High School. I am an elected member of the Maryland delegation, and I also serve as chairman of the Youth Caucus at this White House Conference.

My special interest is in library and information services for youth. This has also been a concern in the State and Territorial pre-White House Conference activities, as shown by the resolutions they have sent off for consideration by the delegates at the White House Conference.

In my State of Maryland, at the Governor's Conference on Library and Information Services, the resolution about school library and medical services was voted by the delegates as their top priority, by a wide margin.

Last week, in *USA Today*, Secretary of Labor Lynn Martin was interviewed about a report she released by the Secretary's Commission on achieving necessary skills, chaired by William Brock. Reading this report was just like reading my mind and the minds of all those who are concerned about youth. It would seem to me that since your committees have oversight over the departments of labor, education, arts and the humanities that you might encourage creative linkages maybe through cross-agency funding between these agencies so that children and young adults get the maximum benefit.

Agencies must cooperate and stop taking library services for granted and be made aware that these services relate to the entire future of these young people and society.

Information literacy is the very foundation for good education, creative thinking, decisionmaking, problem solving, and reasoning. Each of the five competencies mentioned relate to information-using and finding skills and teamwork, all of which are supported by effective library and information services. The report says that young people in the United States should learn certain basic skills and competencies "to hold a decent job and earn a decent living."

They are right, but the young people can't do it without adequate libraries and librarians.

Now I will highly some of my 10 proposals which we feel should be legislated and funded. First of all, categorical aid must be re-established and required for school library media services and resources earmarked in any and all Federal legislation that provides funds for instructional purposes. Set-aside funds specific to school libraries should be mandated within all educational funding programs.

A school library services title; a public library children's services title, and a public library young adults services title to include funds for a national library-based "Kids Corps" program for young adults to offer significant, salaried youth participation in projects to build self-esteem develop skills, and expand the responsiveness and level of library services for teenagers.

We propose that Federal legislation be created to fund the development of partnership programs between school and public libraries to provide comprehensive library services to children and young adults; that all Federal legislation authorizing child care programs, drug prevention programs, and other youth-at-risk programs include funds for books and library materials, to be selected in consultation with professional librarians.

Thank you for this opportunity to bring you some ideas for your consideration as you develop national policies through legislation and funding and for having the vision to pass legislation calling for and funding this White House Conference.

In conclusion, I wish to remind you that the youth of today are not only the leaders of tomorrow, but are our Nation's future.

Thank you. [Applause.]

Senator PELL. Thank you very much indeed. I would add that not only are youth today our Nation's future leaders, but they're all we've got, so we'd better make darned sure they are good leaders, too. I admire your testimony.

[The prepared statement of Mr. Reszetar follows:]

PREPARED STATEMENT OF MR. RESZETAR

Good Morning. My name is Laurence Reszetar. I am 14 years old and entering the 11th grade at Severna Park High School in Maryland. I am an elected member of the Maryland Delegation, and I also serve as Chairman of the Youth Caucus at this White House Conference.

In addition to my school work and other activities that you have in my biographical information, I have had a part-time job for over a year and I participate in the Johns Hopkins University Center for Talented Youth programs.

My special interest is in library and information services for youth. This has also been of concern in the state and territorial pre-White House Conference activities as shown by the resolutions they have sent on for consideration by the delegates at the White House Conference. In my State of Maryland, at the Governor's Conference on Library and Information Services the resolution about school library media services was voted by the Delegates as their top priority, by a wide margin.

The reason for concern in the states is valid. In some schools, the library media center is in a closet in the hallway served by a part-time staffer. This occurs a lot in elementary schools. Students are being short-changed on library services at a time when their character and learning habits are being formed. They will never develop to their full potential as our Nation's future workers and leaders. They must have the nurturing and guidance from books and other services that should be provided in school and public libraries, but public libraries, too, have suffered heavy cuts in budgets and staff. Another problem is that many books and materials that are on library shelves are outdated and the information is not currently correct. They should be weeded out and current information put in their place. The effect of limited resources for replacing outdated materials or adding new ones is made worse by the huge increase in costs of books and information services, including software, computers, vcr's and CD-ROMs.

Last week in "USA Today," Secretary of Labor Lynn Martin was interviewed about a report she just released by the Secretary's Commission on Achieving Necessary Skills, chaired by William Brock. Reading this report was just like reading my mind and the minds of all those who are concerned about youth. It would seem to me that since your committees have oversight over the Departments of Labor, Education, Arts and the Humanities that you might encourage creative linkages maybe through cross-agency funding between these agencies so that children and young adults get the maximum benefit. Agencies must cooperate and stop taking library services for granted and be made aware that these services relate to the entire future of these young people and society. Information literacy is the very foundation for good education, creative thinking, decision making, problem solving, and reasoning. Each of the five competencies mentioned relate to information using and finding skills and teamwork, all of which are supported by effective library and information services. The report says that young people in the USA should learn certain basic skills and competencies "to hold a decent job and earn a decent living." They are right, but the young people can't do it without adequate libraries and librarians.

To help combat these problems, we feel that the Federal Government must make a commitment to improve resource based education for the youngest preschool child to the in-school and out-of-school young adult, through school and public libraries so that all students may become competent, productive and responsible citizens.

Specifically the following proposals should be legislated and funded:

1. Categorical aid must be reestablished and required for school library media services and resources earmarked in any and all Federal legislation that provides funds for instructional purposes. Set-aside funds specific to school libraries should be mandated within all educational funding programs.

2. A School Library Services Title or Act to:

—establish an office within the U.S. Department of Education responsible for providing leadership for school library media programs across the Nation,

—create Federal legislation to support demonstration grants to schools for teachers and school library media specialists to design resource-based instructional activities that provide opportunities for students to explore diverse ideas and multiple sources of information,

—establish grants to provide information technologies to school library media centers.

3. A Public Library Children's Services Title or Act to include:

—demonstration grants for services to children and family literacy programs,

—funds for parent/family education projects for early childhood services, involving early childhood agencies,

—funds to work in partnership with daycare centers and other early childhood providers to offer deposit collections and training in the use of library resources.

4. A Public Library Young Adults Services Title or Act to include:

—demonstration grants for services to young adults,

—funds for youth-at-risk demonstration grants, to allow libraries to work in partnership with other community agencies to provide outreach services for young adults on the verge of risk behavior as well as those already in crisis, and

—funds for a national library-based "Kids Corps program for young adults to offer significant, salaried youth participation in projects to build self-esteem, develop skills, and expand the responsiveness and level of library service for teenagers.

5. That Federal legislation be created to fund the development of partnership programs between school and public libraries to provide comprehensive library services to children and young adults.

6. That a research agenda be established and funded to document and evaluate how children and young adults become information literate.

7. That Federal legislation be developed to fund school and public library intergenerational demonstration programs that provide services such as tutoring, mentoring, leisure activities, and sharing books and hobbies for latchkey children and young adolescents in collaboration with organizations such as AARP that address the interests and needs of senior citizens.

8. That Federal legislation be enacted to fund Family Literacy Demonstration Programs that involve school, public libraries, and other family-serving agencies.

9. That all Federal legislation authorizing child care programs, drug prevention programs, and other youth-at-risk programs include funds for books and library materials, to be selected in consultation with professional librarians.

10. That Federal legislation be developed to establish a nationwide resource-sharing network that includes school library media programs as equal partners with other libraries and ensures that all youth have equal opportunity of access to the Nation's library resources.

Thank you for this opportunity to bring to you some ideas for your consideration as you develop national policies through legislation and funding and for having the vision to pass legislation calling for and funding this White House Conference.

In conclusion, I wish to remind you that the Youth of Today are the not only the Leaders of Tomorrow but are our Nation's future!

Senator PELL. We now come to Ms. Theresa Nellans, assistant director, Office for the Deaf and Hearing Impaired in the Department of Labor and Industry, Harrisburg, PA.

Ms. NELLANS. I am Theresa Nellans from Pennsylvania. I speak because I learned to do so before I lost some of my hearing at the age of 12 from German measles. As I grew up in northern Maine, I voraciously read books at the local library. It was that reading that helped bridge the gap between my rural education and that of other students at Lawrence University. It was also at the library where I found information on colleges and financial aid.

At the age of 30, I lost more of my hearing and became profoundly hearing impaired after taking antibiotics. Again I went to the libraries for information on this disability and to learn to accept it.

Today I am here to ask you, Congress, to establish a national library service for people with disabilities. This service would oversee the dissemination of library materials and information on all disabilities in a variety of formats. It would also loan communication and other assistive devices through a State, regional and local library network. In this way, people with disabilities can be productive and active citizens.

I use a variety of technology devices myself. I use two powerful hearing aids and a FEM system. I use a teletype machine for the telephone, a decoder for television, a telemagnetic loop that goes around the room. But there are many people like me who do not know what is available. They are isolated, they are unproductive, and they are in despair.

I recommend a national advisory board to be associated with the national library service for people with disabilities. This would enhance the use of technology, its development, and the accessibility of libraries and information services.

In addition, a volunteer component would link up those people who have something to give with people who are in need.

I have submitted additional written testimony to your staff.

Distinguished chairmen, thank you for your demonstrated leadership in improving the quality of life for all Americans. The Americans with Disabilities Act was the greatest gift this society has given me. I ask that you make libraries and information services, the keystone of democracy and productivity, accessible to all Americans.

Thank you. [Applause.]

Senator PELL. Thank you very much, Ms. Nellans.

[The prepared statement of Ms. Nellans follows:]

PREPARED STATEMENT OF MS. NELLANS

A RECOMMENDATION FOR CONSIDERATION BY THE 1991 WHITE HOUSE CONFERENCE ON LIBRARY AND INFORMATION SERVICES BY TERESA A. NELLANS, COMMONWEALTH OF PENNSYLVANIA

It is recommended CONGRESS ESTABLISH WITHIN THE LIBRARY OF CONGRESS A NATIONAL LIBRARY SERVICE FOR PEOPLE WITH DISABILITIES. The NLSPD mission would be to encourage people with disabilities to become literate and enlightened through self-education, tutoring, and participation in cultural, educational and political activities by:

1. Overseeing the dissemination of library materials and information on all disabilities in book, microfiche, magazine, audio and video formats and the loan of communicative and other assistive devices via a state, regional, and local library network
2. Addressing through its National Advisory Board national information policies, enhancement of technological assistance and development, and accessibility to libraries and information
3. Promoting the common interest and good of all people with disabilities and their families and employers and thereby reducing fragmentation
4. Providing information on careers, jobs and literacy to people with disabilities thus increasing the workforce
5. Promoting through its volunteer component social bonding between people who have something to give and want to serve and other people who need help
6. Establishing libraries as the keystone of democracy, promoting equality of opportunity and active responsible citizenship

RECOMMENDATION TO 1991 WHITE HOUSE CONFERENCE ON LIBRARY AND INFORMATION SERVICES

NATIONAL LIBRARY SERVICE FOR PEOPLE WITH DISABILITIES

SUBMITTED BY TERESA A. NELLANS, PENNSYLVANIA

This proposal was prepared for the White House Conference on Library and Information Services in consultation with the Pennsylvania Commissioner for Libraries. This paper does not necessarily represent the official policy of the State of Pennsylvania. I work at the Office for the Deaf and Hearing Impaired, Department of Labor and Industry of the Commonwealth of Pennsylvania.

Recommendation:

That Congress establish within the Library of Congress a National Library Service for People with Disabilities. The NLSPD would oversee the dissemination of library materials on all disabilities in book, microfiche, magazine, audio and video formats and would loan communicative and other assistive devices via state, regional, and local library network. The NLSPD would implement the recommendations from the American Library Association document of May 1991 on "Library Services to People with Disabilities".

Issue:

Only a few of the libraries in the United States are equipped and have trained staff to serve the more than 43 million people with disabilities. As a result, people with disabilities are often denied access to those sources of information and enlightment available to others. Denial of access impedes the effectiveness with which people with disabilities function in society. Denial of access conflicts with our democratic values of freedom and equality.

Background:

The Americans with Disabilities Act provides for people with disabilities to be included in the mainstream of our society. The ADA defines the civil rights of people with disabilities and sets standards for accessibility. Libraries are required to be accessible by the Act. While the ADA establishes the principle of accessibility for people with disabilities, it offers no mechanism for providing information on the law or on such matters as the latest research findings or technological advances which might be of interest to people with disabilities. Even though some relevant information is provided by the organizations interested in people with disabilities, these organizations usually reach only special segments of that population, resulting in fragmentation. Furthermore, the requisite payment for information is a deterrent to many people. Fragmentation promotes the lobbying of special interest groups, conflict and litigation within our society. Fragmentation is disruptive. People with disabilities and people interested in learning about disabilities need to have free, unencumbered access to information and literature .. access that preserves privacy and dignity and promotes individual responsibility, self-esteem and success.

Indeed, given their improved accessibility, libraries are the best source for a national network of information and assistive devices for people with disabilities and their families, friends, and employers because libraries are ubiquitous and the information they provide is free. Libraries provide a quiet and private setting where people can reflect and learn. They are an oasis of self-help. The need for improved access to library services for all people, and especially to those with disabilities, is supported by the pre-WHCLIS state conferences.

Questions for discussion:

Should the structure of Library Services for People with Disabilities be national in scope to provide direction and leadership? How can volunteers, including people with disabilities, be included into the service? How can the specialized libraries and resources, e.g. Gallaudet University, medical libraries, be linked to remote libraries in the United States? How much would it cost and where would the money come from? What linkages would be appropriate with the already existing Library Services for the Blind program? How can librarians learn about and obtain information on serving people with disabilities, including ADA and other laws and research findings? How can collections and technology be improved and provided?

Implementing strategies:

National Scope—Located within the Library of Congress, the NLSPD would be national in scope and work in conjunction with the Library of Congress's already established service for the Blind and Physically Handicapped. The NLSPD would oversee linkage with state, regional and local libraries and with national organizations interested in people with disabilities. The linkage would provide an effective and efficient coordinated network of national library services for people with disabilities.

Advisory Board—The NLSPD would have an Advisory Board comprised of consumers and professionals who would make recommendations on collections, technology, priorities and coordination. The Advisory Board would promote the accessibility of libraries and information services to people with disabilities through awareness programs, education, and new technology.

Volunteers—The NLSPD would establish a pathway through which volunteers, with and without disabilities, of all ages could read, deliver material, repair assistive devices, tutor for literacy and employment, and teach Braille or American Sign Language. People who have succeeded with a disability could teach others to use assistive equipment and to learn to read and write.

Technological Assistance and Accessibility—Assistive devices would be lent to people with disabilities so that they could gain information and participate in educational and cultural lectures, political debates and community meetings. All libraries would have (where possible) one room fully accessible to people with disabilities so they could participate in community events and meetings.

Dissemination of Information—Information on laws (especially the Americans with Disabilities Act), research, resources, and organizations that provide information and assistance to people with disabilities would be kept on file and disseminated. For example, if a parent of a newly diagnosed deaf child in a remote area were to go to a library linked to the NLSPD and ask for information on deafness, the librarian could access a computer network that would identify the desired material and arrange for the parent to have access.

Literacy and Education—The NLSPD would provide information on literacy, and ways to adapt to life with a disability. Through use of interactive computer and video career guidance materials, the NLSPD could assist adults with career, jobs, and retraining information needs. For example, Pennsylvania has a computerized job counseling and resume producing system called Workplace which is located in libraries.

Self-Help—The NLSPD would be built on a philosophy of self-help. The library network established by NLSPD would enable people with disabilities to seek information, literature, and assistive devices without waiting for a professional or organization. They and their family, friends, and employers could learn about disabilities in their own way, at their own pace in a free and unbiased setting.

Impact on three areas:

Democracy—By providing information and accessibility to people with disabilities, the NLSPD would promote equality..and responsible citizenship. The advisory board would promote mutual interest and work toward the common good reducing fragmentation of special interest groups. The volunteer component would promote social bonding between people who have something to give and want to serve others who need help.

Productivity—Information on jobs and careers for people with disabilities would benefit of employees and employers. Employment of people with disabilities increases the workforce and reduces the burden on society of supporting dependent people. As the population ages and more people have disabilities, e.g. visual and hearing impairments, the NLSPD would also help maintain and integrate an older workforce. The libraries and information services may mitigate our society's litigiousness through education and awareness. Finally, the NLSPD may stimulate a new industry in the use of, manufacture and research of assistive devices to enable people with disabilities to be more productive.

Literacy—NLSPD would encourage people with disabilities to become literate through self-education, tutoring, and participation in cultural, educational and political activities.

Senator **Pell**. We now turn to Ms. Julianna Kimball from Phoenix, AZ.

Ms. **Kimball**. Thank you, Senator Pell.

My story is no different than Mr. Ramirez' story. The libraries have become my candy store. When I walked into the library for the very first time 4 years ago, that is where I learned to read.

Four years ago, I was labelled a functional illiterate. I run a very successful business in Phoenix, AZ. The libraries, along with Literacy Volunteers of America, have opened up my world. It is called "my wonderful world of knowledge."

Today's children are tomorrow's future, but their parents, if they are not able to read, become no stepping stone for their children.

The adult basic education program and Literacy Volunteers of America need a place to go. The libraries are the places and were the place for me.

Thanks to Xerox Corporation, New Balance, and some private donations, I am walking across the United States of America to share with people the importance of learning how to read. Reading has become a very important part of my life.

When I walk into libraries, librarians ask me the question: Would you ever do this again? And I say: This is only once in a lifetime. Your libraries are forever. I did something that I was never able to do two and a half years ago. I really became a true American citizen. I was able to vote. I then became a productive citizen.

I am now an American, and I am proud to say I am an American of the United States of America. Thank you. [Applause.]

Senator PELL. Thank you very much, Ms. Kimball.

Now we will turn to Dr. K. Wayne Smith, president and CEO of the Online Computer Library Center in Dublin, OH.

Mr. SMITH. Thank you, Mr. Chairman.

Online Computer Library Center, OCLC, is a not-for-profit computer library service and research organization whose membership includes 12,000 libraries of all types in all 50 States and also some 200 libraries in 40 other countries.

I appreciate the opportunity to present this statement to the committee on behalf of our 12,000 member libraries. My message is simply this. We must continue to support our libraries if Americans are to continue to compete successfully in a global marketplace. Information is key to improvements in productivity.

We live in an age of information. Experts agree that the sum total of human knowledge is now doubling every 5 years. An estimated 60 percent of Americans are what could be called information workers. Our citizens are increasingly looking for smaller and smaller needles of information in bigger and bigger information haystacks.

Our Nation's libraries are uniquely well-positioned to help increase the productivity of information and to help America maintain its lead in the global marketplace of the 21st Century. Indeed, in the last 20 years, America's libraries have played an important role in electronically advancing the frontiers of knowledge and in making information and information workers more productive.

What libraries and other information-based organizations such as OCLC basically do is add value to information by organizing it, indexing it, accessing it, distributing it and preserving it.

In the information age, we are witnessing the merger of our oldest information storage and retrieval system, the library, with our newest, the computer.

Libraries themselves have become part of regional, national and even international computer networks that are capable of beaming more and more information to people when and where they need it, in the form they need it, and at a cost they can afford.

For example, the 12,000 libraries of the OCLC network send more than 65 queries per second to an electronic card catalog they have cooperatively built over the past 20 years and which has grown to more than 24 million titles that span the depth and breadth of recorded knowledge. The result of this library collaboration through computers is that Americans today have more information at their fingertips than at any time in our history.

But this is just the beginning. As we approach the 21st Century, the electronic medium will increasingly become the medium of choice. Indeed, America's computerized library services and networks are the envy of the rest of the world, but they didn't just happen, and they won't just continue to be without more resources and without better use of existing resources. I urge this conference to recommend both. Thank you very much.

Senator PELL. Thank you very much, Dr. Smith.

[The prepared statement of Mr. Smith follows:]

BEFORE THE JOINT CONGRESSIONAL HEARING ON LIBRARY AND
INFORMATION SERVICES FOR LITERACY, PRODUCTIVITY, AND DEMOCRACY
CONGRESS OF THE UNITED STATES
July 11, 1991

Written Statement by

K. WAYNE SMITH
PRESIDENT AND CHIEF EXECUTIVE OFFICER
OCLC ONLINE COMPUTER LIBRARY CENTER

Senator Pell, Representative Williams, and members of the Joint Committee:

I am K. Wayne Smith, President and Chief Executive Officer, OCLC Online Computer Library Center, a not-for-profit membership organization engaged in computer library service and research.

Thank you for the opportunity to offer testimony on library and information services for literacy, productivity, and democracy.

My remarks today will focus on the productivity of information. I would like to make three points. My first point is that we are living under the threat of an Information Armageddon, and we had best do something to reduce that threat. My second point is that conventional wisdom about productivity is hopelessly rooted in the industrial age, not the information age, and we had best change that view. My third point is that libraries are particularly well-positioned to help improve the productivity of information, and we had best take advantage of that fortuitous fact.

First, I submit that we are living under the threat of an Information Armageddon. We are in a great and crucial conflict with information. At this point, we simply have too much information and too little knowledge and the imbalance is increasing.

It is now nearly 25 years since the term "Information Explosion" entered our general lexicon. How are we dealing with the fallout from this explosion in which the total volume of information is now doubling every five years? The answer is not very well.

There are parallels between nuclear energy and the information explosion. Both have strong supporters and detractors. Both promise more than they can deliver. Both have good sides; both have bad. Nuclear energy can provide us with power, but it can also blow us to Kingdom come. The information explosion can help us improve productivity, competitiveness and the quality of life, but it also has the potential for intellectual gridlock, for a debilitating paralysis in our science, our technology, our economy.

Let me look first at the good and bright side of the Information Age.

What better proof can there be that the Information Age has truly arrived than that it is now the subject of a new, permanent, $15 million exhibit at the Smithsonian Institution? The new exhibit opened last year and is called "Information Age: People, Information, and Technology." As you will see from my remarks, I believe strongly that the Smithsonian has the key variables in the right sequence. People first, then information, and then, technology.

The Information Age exhibit appeals to me for two reasons. First, my organization, OCLC, is in the exhibit.

Second, the exhibit, in the highly technical jargon of the Information Age, has some pretty good stuff in it. It's about more than the media age or the computer age or the technology age. The Information Age is a combination of many technologies, and how they affect our lives at home, at school, and in the office. Permit me to take you on a brief stroll through the exhibit.

It starts at the beginning of the Information Age in the 1830s, with Samuel Morse's invention of the telegraph. The telegraph was the first device to transmit information instantaneously over long distances. It rapidly established new connections among people and communities around the world. From the telegraph, you go to such things as Herman Hollerith's tabulating machine that was used to tabulate data for the 1890 census. You go from there to the telephone and then to radio, television, computers, and computer networks. You go through the exhibit and it becomes obvious that virtually all of us are participating in the Information Age, whether we like it or not, whether we know it or not--in our offices, in our factories, in our automobiles, and in our homes.

World War II saw major, new information technologies emerge: radar, code-breaking devices, and perhaps most important, the electronic computer. You can examine segments of the ENIAC, the largest and most important computer built during the war.

Then came peace and television. Within 20 years television was in most American homes, reshaping our culture.

You can learn about transistors, and how they made possible smaller, cheaper, and more reliable computers, and how computers began to seemingly breed at night and move out from the universities and the laboratories into the mainstream of American business--from banking to airline reservations to process controls.

Computer technology continued to shrink. The computer which once occupied an air-conditioned room now sits on a thumbnail. Integrated circuits, or chips, put computers on desktops and within the price range of a very large number of people.

Now, one of the more interesting parts of this incredibly interesting exhibition is that it is interactive. When you go in, you pick up a brochure that has been individually bar-coded. This brochure is your magic wand that allows you to interact with various parts of the exhibition. Thus, the exhibit treats you as an individual, it reacts to you in a unique way. It understands that people are still an important part of the Information Age. For example, in the World War II code exhibit, you can encode your name in a secret code. You can produce an evening news program on television. You can trade in international currencies. You can experiment with computer voice recognition or design a bicycle with a computer.

You can even learn about an FBI computerized national database that carries information on wanted or missing persons, stolen property, and criminal histories. I can't resist telling you at this point that my organization, OCLC, just this year used its database and its member libraries to help the FBI inventory and track down the rightful owners of some 20,000 rare books, found in a house in Iowa, very rare and old books that were the old-fashioned software of our forebears. The FBI had estimated it would take them two years to locate the owners. With the help of OCLC and library volunteers, we located 95 percent in 30 days.

Also at the Smithsonian, there are scads of video monitors, 78 computers, 52 laser videodisc players, 24 bar-code readers, 42 audio sensor devices that detect the noise levels throughout the exhibit and automatically raise or lower speaker volume. There is a working 2-ton robot that is normally used to build automobiles, and R2D2 and C3PO from Star Wars.

One of the things that struck me the most about the exhibit was how the pace of information processing has speeded up business transactions. Cash registers, adding machines, stock tickers, punch cards, digital calculators, and so on. The constant in all of these technologies has been to shorten the time for decision-making, thus increasing the pace and stress of the business day. Whatever else, the Information Age has been very good for the antacid business.

All of which leads me to the downside of the Information Age: the threat of an Information Armageddon.

There are dangers with respect to having too much information, with respect to the quality of that information, with respect to the rising costs of that information, and with respect to the control of that information.

Or, as Gertrude Stein said, "Everybody gets so much information all day long that they lose their common sense."

The sheer volume of information threatens to overwhelm us. The sociologist Daniel Bell has made some pertinent observations about the Information Age. It has been estimated that by 1800, the sum total of human knowledge was doubling every 50 years; by 1950 it was doubling every 10 years; and by 1970 it was doubling every 5 years. Even in a field as old as medicine, more has been published since 1975 than in all previous history. It does not take much imagination to foresee that unless some of our publications are digitized and not stored in paper form in collections around the globe, our libraries and our forests will simply be unable to handle the explosion.

We all know the familiar litany of more scientists being alive, more information being produced, than at any time in our history. The problem is not only keeping up with all of this stuff, but finding the information you need. It is not unlike the process of finding the proverbial needle in a haystack, except the haystacks are now mountain-sized.

There is also the growing problem of the quality of information. Our experts have to know more and more about less and less. Eventually, I suppose they will know everything about nothing. Tenure, for example, depends in large part on the publish or perish dictum. This has helped raise the publication cycle to the heights of GIGO. For the uninitiated, that is garbage in, garbage out. It is high time that the dictum be modified at least to "publish and/or perish." In short, there is little correlation between the overall quantity of information being produced and the overall quality of that information.

For example, more and more people are asking: What has a chief executive, a trillion-dollar budget, and millions of employees, yet doesn't issue a financial report to its shareholders? Answer: the U.S. Government. Another popular question today is: What industry is responsible for billions of dollars, thousands of employees, and regularly makes detailed financial reports to its shareholders that have proven to be less than totally reliable? Answer: the U.S. Savings and Loan industry.

It is not my purpose here to berate the public or private sectors, but simply to point out that the common thread in many of these problems is a lack of reliable information on which to base decisions.

Information is also getting more expensive. According to a study done recently by the Association of Research Libraries, the U.S. R&D effort is being threatened by the high cost of information. A small number of commercial publishers increasingly control publication of key scientific, technical, and medical journals. For example, three companies in Europe publish over 1,300 journals in scientific and technical areas. Information found in these journals is obviously needed by researchers in the U.S. on a timely basis if we are to continue to compete successfully in the area of technological innovation.

The price of these journals, however, continues to rise faster than the federal deficit. It is reminiscent of a 19th century cartel, only this time, it is an information cartel. Libraries are being forced to cancel subscriptions because of high prices, and this can have dire consequences. The decline of a research collection translates into a loss of timely access to information for the researcher and the scholar. And, study after study has shown that this has a direct bearing on the creation of new ideas, new products, research and development, and the movement of these into the marketplace. All these factors influence a country's ability to compete in a technologically-based, global world economy. Cost is a major information productivity issue which bears directly on who will be the haves and have-nots in the Information Age of the future.

Finally, control of information will loom larger as the Information Age matures. And by control, I mean something very complex that encompasses access, interconnectivity, and standardization as well as such things as ownership, censorship, and private versus public operation.

We have today a situation that is analogous to the building of great railroad systems, each with its own particular gauge, only we are building giant computer networks. These could well become digitized towers of Babel. Linking these diverse networks are control issues that combine technology, standards, law, and market forces. When to this mix you add the hackers, the data pirates, and other fringe elements, it adds up to a pretty rough and tumble life on the frontiers of the Information Age.

Thus, we face an Information Armageddon, not in the sense that we are threatened with extinction, but in the sense that there are crucial, decisive battles that lie ahead for us to make information more accessible, more usable, and more affordable.

My second point is that our present concepts of productivity are firmly rooted in the industrial age. To paraphrase Lincoln, we need to disenthrall ourselves from the dogmas of the past, we need to think anew.

The Bureau of Labor Statistics defines productivity as a concept that expresses the relationship between the quantity of goods and services produced--output--and the quantity of labor, capital, land, energy, and other resources that produced it--input. In other words, productivity equals output divided by input.

In the United States in 1776, most people worked on farms. Today, only 3 percent of us work on farms, but that three percent feeds the rest of us and a good part of the rest of the world. The productivity increases in agriculture are dramatic, obvious, understandable, and measurable.

However, it is becoming more difficult to measure productivity today because both the outputs and the inputs are changing. Indeed, the very nature of our work is changing.

Between 1776 and the Second World War, most of us moved from the farm to the town to the factory. Many of us made things. In the early 1950s, though, we moved again, from a manufacturing economy to a service economy. One of the White House Conference on Libraries and Information Services fact sheets notes that by the year 2000, some 71 percent of the labor force in industrialized countries will work in information processing and communication.

In dealing with these changes, there is a tendency to talk about the Information Age as if we have crossed some Rubicon in which the things that used to matter--agriculture, manufacturing, transportation, extraction--don't matter like they used to. Some technical experts let their brains go to their heads when extolling the virtues of information. Unfortunately, we are still going to need food, clothing, and shelter in the Information Age.

Harlan Cleveland, a former State Department official, a former university president, and a recognized authority on information, has some very interesting things to say about the Information Age. He points out that the industrial era was characterized by the influence of humankind over things, including nature and the artifacts of man, while the information era features a sudden increase in humanity's power to think, and therefore to organize.

Cleveland says that the Information Age does not replace, it overlaps the growing, extracting, processing, manufacturing, recycling, distribution, and consumption of tangible things. Agriculture and industry continue to progress by doing more with less through better knowledge, leaving plenty of room for a knowledge economy.

Cleveland also makes several important points about the nature of information.

One. Information is expandable. For the most part, the more information we have, the more we use and the more useful it becomes. The problem is, however, that we know we don't have all the facts, so we keep searching until we are inundated with raw data. The more information we obtain, the more time we need to analyze it, to distill knowledge from it.

Two. Information is compressible. We can concentrate information, summarize it, store it in miniature for easier handling. That is something you can't do in the steel industry.

Three. Information is substitutable. It replaces land, labor, and capital. You can work at home at your computer terminal.

Four. Information is rapidly transportable. You can be located in Ohio or Nebraska and have the same information you have in London or New York.

Five. Information is diffusive. It leaks. It defies copyright, confidentiality, secrecy.

Finally, information is shareable. If I sell you an automobile, you have it, and I don't. If I sell you information, though, we both have it. Thus, the standards, rules, and conventions in an information-rich environment are going to be different from those created to manage the zero-sum bargains of market economics and traditional international relations.

We must think anew about productivity in the Information Age. As we pursue food, clothing, shelter, truth, justice, and the American way, we use computers, telecommunications, and information--information that is expandable, compressible, substitutable, transportable, leaky, and shareable.

Clearly, the key lies in making our information more productive. We have only just begun to think about the effects of the Information Age on the individual worker. Beneath the the quality circles, and the management by objectives, the competitive strategies, the other modern management techniques we use today, is a mind-set honed and finely tuned to a bygone age--that of an expanding, predictable, mass-production, zero-sum, batch-processing environment. America grew strong by improving the techniques of economies of scale and mass production. In the Information Age, though, we need to embed higher levels of information and knowledge into both people and products in order to make them more competitive in the marketplace. It no longer matters so much how many different products one can produce, it matters greatly how good the products are and how closely they meet people's needs. Our collective challenge is to invent the measures, tools, and structures that will fit with the needs of the Information Age, that will improve the productivity of information, and that will make us more competitive.

My third point is that libraries are uniquely well-positioned to help do all of this. For a variety of reasons, libraries are already on the frontiers of increasing the productivity of information. Indeed, these ancient and venerable institutions can probably do more to help other organizations become more productive than any other comparable institution I can point to at this moment. Let me explain.

What libraries and other organizations, such as OCLC, in the library community basically do is add value to information by organizing it, indexing it, improving access to it, distributing it, and preserving it.

Throughout the Smithsonian exhibit, it seemed to me the single thread that connected everything was that these technologies are all aimed at providing information to people when and where they want it. This is the goal of our newest information storage and retrieval system, the personal computer, and also the goal of our oldest information storage and retrieval system, the library.

Over 30 years ago, John Diebold noted that any important technological innovation brings about three phases of change. In the first, we simply do better today what we did yesterday, or, in Diebold's words, you "mechanize what you did yesterday." The second phase begins when, as a result of technological innovation, we find the tasks themselves changing. "The technology revises what we do, not just how we do it." The third phase is a change in society itself as a result of this transformation. Examples of the third kind of change resulted from the internal combustion engine for surface transportation, and the jet engine for air transportation. In libraries, we are still largely in that first phase--doing better what we did yesterday--but we are rapidly moving into the second, which puts libraries far ahead of most other institutions.

Let me give you the briefest possible history of the role of libraries in our world. Since the dawn of history, humans have sought to preserve a record of their times. In the advance of civilization, the relentless cycle of invention, innovation, and discovery has been powered and created by knowledge, passed from generation to generation. The chain has been fashioned by oral history, by customs, by traditions, by tablets, by scrolls, by manuscripts, by printed materials. Today, that chain is moving into a new form--electronic data. In the quest for knowledge, we humans have built great libraries to preserve, to organize, and to distribute knowledge accumulated over centuries in a variety of forms.

Until recently, libraries were places you went to in order to find information. Things were organized so you could find things and librarians were there to help you. But, it was a passive set-up and libraries were largely a storehouse.

The advent of computer technology, however, started to change the library's role. At first, true to Diebold's observations, libraries simply applied computers to traditional tasks: cataloging, ordering materials, arranging interlibrary loans, circulating materials to patrons, and so on. They did so not so much because they wanted to, but because they had to in order to keep up with the information explosion.

Predictably, others then began to build specialized databases for the automated libraries. At first, these databases followed the money trail--medical, legal, scientific, and engineering databases were built first. Today, however, there are nearly 2,000 databases in the humanities and social sciences as well as in the scientific and technical realms.

The computer's ability to store, manipulate, index, and retrieve items from very large amounts of information lends itself quite well to library operations. Libraries are, after all, just huge haystacks surrounded by people looking for needles. Librarians discovered early that the computer can help you find your particular needle. Computers can make libraries more productive.

For example, my organization operates an international computer network that libraries use for a variety of purposes, but primarily to catalog items and to arrange interlibrary loans. At our facility in Dublin is the world's largest online computer library system--11,000 workstations in libraries across the country; 330,000 miles of telephone lines; 17 mainframe computers and 101 minicomputers, and 106.6 gigabytes of storage. We receive over 65 messages a second from our member libraries, including our Japanese members. Imagine that, an American high tech company that sells to the Japanese!

What is all this instantaneous communication about? It is about information, about knowledge, where it is and what it is. Our computerized network provides the means for libraries to both reduce the rate of rise of their costs, hence to become more productive internally, and to increase access to information, hence, to become more productive externally.

OCLC has the world's largest bibliographic database with more than 24 million bibliographic records, including, I might add, all of those from the entire card catalog of the Smithsonian--a process that took seven years, and was finished in 1990. Bibliographic information describes books, journals, and other materials. It is similar to what you used to find in the card catalog--a physical description of the item, and a description of its intellectual content. Libraries either use information that already exists in the database to catalog an item, or they put it in themselves and make it available for other libraries to use. The economies of scale are such that overall, libraries that are cataloging current materials find 94.6 percent of the things they are looking for. This means that out of every 100 books a library must catalog, it need only create original catalog records for about 6. This is an enormous savings in time and labor when you know that it takes about 30 minutes to originally catalog a single item.

The first library in the world to perform online cataloging was Ohio University in Athens, Ohio. They logged onto OCLC on August 26, 1971, and have been online ever since. The first year OU was online, they were able to increase the amount of material they cataloged by one-third, and at the same time, they were able to eliminate, through attrition, 17 full-time positions. That is also called increasing productivity.

Today, we calculate that at one workstation, a worker can catalog some 11,000 items annually, of which only 6 percent will require actually creating a new catalog record from scratch.

This shared database of bibliographic information also contains more than 380 million location listings for the 22 million items and these numbers grow by about 10 percent annually. Thus, if you are in Parmly Billings Library in

Billings, Montana, you can go to an OCLC terminal and find out what's in the Pell Marine Science Library in Narragansett, Rhode Island, or in Ohio State's library, or Harvard's, or the San Francisco Public Library or the British Library. All of a sudden, you can start finding those needles in the haystacks.

This database also helps scholars become more productive. At the National Humanities Research Center in Chapel Hill, North Carolina, for example, world-reknown scholars come on sabbatical for a year to write books. The Center has a small reference collection of only about 1,000 books. The library resources the scholars need are obtained through electronic databases and interlibrary lending. In other words, the scholars don't go to the libraries, the libraries go to the scholars. This increases their productivity, because they don't have to drive to the library, find a parking place, walk into the library, search the catalog, go to the stacks, and so on. The modern phrase for these scholars is "knowledge workers." The OCLC computer system makes such knowledge workers more productive.

Federal library programs have also both increased the productivity of library staffs and the productivity and availability of information itself. The United States Newspaper Program, under the auspices of the National Endowment for the Humanities, is a long-range, coordinated effort to locate, preserve on microfilm, and catalog in the OCLC database, an estimated 250,000 newspaper titles published in this country since 1690. To date, NEH has awarded grants to 38 states and two U.S. territories. The result of this cooperation has been the development of a national newspaper database which will greatly assist historians and other scholars for years to come. We at OCLC are proud to be a part of this exciting program, which is preserving an important part of the historical record.

The Library Services and Construction Act (LSCA), under Title III, has resulted in nearly 400 regional, state, and local projects to help libraries share and preserve materials, including eight projects that involve the OCLC national database in regional union lists of serial publications and regional interlibrary lending networks.

And, the Higher Education Act, Title II-C Strengthening Library Resources Program, funded in 1987 alone some 22 projects in research and university libraries that resulted in significant additions of bibliographic records and holdings information to the OCLC database. For example, the University of Illinois is involved in a project to catalog and index the collections of U.S. Department of Agriculture and State experiment station agriculture materials from 1862 to the present. This information becomes available for other libraries in the network to use, and ultimately, it becomes more readily available for scholars, researchers, students, and teachers--our country's knowledge workers.

And making knowledge workers more productive is going to be one of the key challenges we face in the Information Age.

Now, however, libraries are on the threshold of Diebold's second stage, where we start to change the things we do. And, at times, we even approach the fringes of the third stage, where the innovation actually changes our society.

As the Smithsonian exhibit showed us, and as Harlan Cleveland explained, we are moving from a print-oriented, information-poor environment to a multi-media-information-glutted environment. Twenty years ago the person holding the information was in a powerful position. Today, the person in power is the one who can find the relevant data from among the vast quantity of materials that are readily available. Or, as Gertrude Stein might have put it, the person who has the power is the one who can retain his or her common sense in the midst of all this information.

Computer technology properly applied to libraries saves librarians time, saves their users time, makes knowledge workers more productive. As a result, libraries are becoming less of a place--a storehouse--and more of a facilitating resource to access information wherever it is. Having made this transition, libraries and librarians are now in a better position to help other institutions do the same. Put another way, in almost every city and campus throughout the country, there is a cadre of individuals who understand how to add value to information, who understand the productivity of information, who know how to use databases and computers and networks, who have already worked their way through mechanizing their own tasks, and who have worried a lot about the implications of Diebold's second and third stages. It would be beyond foolish for us not to make better use of this trained resource as we seek to expand the use of the basic tools of the Information Age.

There is great opportunity here because of the coincidence of needs and skills. The prerequisites for increasing the productivity of information are the ability to create, acquire, store, retrieve, transmit, and use information.

The library's role is to acquire, store, retrieve, and transmit information. Thus, as the repository of information items, it is no accident that we find the library at the symbolic center of the world's universities.

It is fortuitous, however, that we also find libraries at the center of technological change. The general educational environment has adopted new technologies very slowly. As one educator noted, it took 30 years for the technology of the overhead projector to move from the bowling alley to the classroom. Or as Derek Bok once put it: "It seems like many on campus feel that nothing should ever be done for the first time."

Perhaps largely because they had to, libraries have moved more quickly to take advantage of recent innovations in information technology. As a result, libraries have become much more active in providing information to users, both inside and outside the library. Increasingly, information resources are distributed. Many libraries are now part of a wider, campus information system which itself can be tied through NSFnet, or Internet, to other campuses.

At the Georgia Institute of Technology, for example, students and faculty can freely consult magazine indexes, databases, and other services in their rooms or offices. The library's main role is to deliver documents to them. Georgia Tech estimates that this computerized information system saves $1.2 million in faculty time. OCLC and Carnegie Mellon University are building a prototype electronic library in which a scholar has access to full documents in both paper and machine-readable form.

With the American Association for the Advancement of Science, OCLC will be bringing out next year an electronic science journal. It will exist primarily in electronic form. Articles will be written, edited, refereed, compiled, distributed, and stored electronically. You will be able to look for back issues by subject matter and other indexes. In short, this is another example of Diebold's second stage, where technology starts to change the way we do things.

A recent study of the largest firms in each major sector of the Gross National Product sought to determine how corporations value information services. The single most important component of corporate information appears to be quality of information--the needle in the haystack.

We need to think up new ways to make information more productive. Our greatest challenge will be to develop systems that will enable people to find ounces of valuable information from the tons of information that are cycled into our environment each day.

I could go on, but mercifully, I won't.

What, in heaven's name, does all of this mean? Well, it means a great many things. But, I think it means five things in particular. Five things that we should keep in mind as this White House Conference on Libraries and Information Services contemplates recommendations it will make that are likely to shape our future for the next two decades.

First, it means we are all going to have a shorter period of time in which to make decisions. It means we must all learn to adapt more quickly, to respond faster, to be a quicker study. How fast can you learn? How fast can your organization learn? What mental models do you depend on? How fast can you change? Can you learn to forget? All of these are questions with increasing relevance and implications in the Information Age.

The essential thrust of the expanding information technology must be to move toward providing information when it is needed, where it is needed, in a form it is needed, and at an affordable price.

Second, it means we are all going to have to be better planners--better planners of our time, better planners of the use of resources, better planners of where we are going and why.

Better planning, a requirement made easier by timely information, wisely acted upon.

Third, it means we are going to have to figure out how to get more knowledge out of information. It means we will need more quality information--more and better databases, more value-added, more useable information, more reliable information. If you think back to some predictions that never came true, it becomes apparent that the predictors had all the information they needed to be right, but they were dead wrong in their answers. For example, the editors of Business Week arrived at the following conclusion in 1958: Quote "with over 50 types of foreign cars already on sale here in the United States, the Japanese auto industry isn't likely to carve out a big slice of the U.S. market for itself." Adm. William Leahy advising

President Harry Truman on the U.S. atomic bomb project in 1945: "This is the biggest fool thing we have ever done....The bomb will never go off, and I speak as an expert in explosives." And Henry Luce, founder and publisher of Time, Life, and Fortune in 1956 predicted that quote "by 1980 all power--electric, atomic, and solar are likely to be virtually costless."

Fourth, it means were are going to have to figure out how to get more knowledge into people. In his classic work, The New Industrial State, John Kenneth Galbraith, wrote: "In an age of rapidly increasing technical capacity, the natural resource that will be in shortest supply is human talent--talent for management, for complex decision-making, for research, and for bringing computers into effective use."

And to paraphrase Harlan Cleveland, the United States did not get to be a great nation by redoing in each generation what it used to do well in the one before, like making mechanical adding machines or oversized automobiles. It got there by constantly thinking up new things to do--like linking computers to telecommunications--before others did. Cleveland also points out that those people who do not educate themselves and keep reeducating themselves to participate in the new knowledge environment will turn out to be the peasants of the Information Age. And, societies that do not give their people a chance at education and a chance to tune-up their knowledge will be left in the jetstream of history by those that do. The distance between the haves and the have nots will widen--both for individuals and for nations.

Clearly, libraries have an important role to play here. The historian and educator Diane Ravitch put it best: "The library is an institution in which people pursue their own education, whatever their age or occupation. It is a people's university, offering knowledge, information, and entertainment to those who seek it. The library doesn't care what language they speak, what credentials they offer, what tests they can pass, who their parents were. Its doors are open for all, to use for their self-improvement. It is vital to keep the doors open and the collections intact." It is a bonus that libraries are also now able to assume a leadership role in helping others to use the new information technology.

Fifth and finally, it means we must continue to improve the productivity of information. We have no other choice. The Information Age has indeed come of age. There is no putting the genie back in the bottle. No going back to a simpler time. No revisiting Diebold's first stage. Clearly, we already have plenty of information and clearly the information cycle is continuing to accelerate. We are all in the Information Age, whether we like it or not. The basic task is to separate the wheat from the chaff. Or, as T.S. Eliot put it so eloquently in "The Rock:"

> The endless cycle of ideas and action,
> Endless invention, endless experiment,
> Brings knowledge of motion, but not of stillness...
> Where is the Life we have lost in living?
> Where is the wisdom we have lost in knowledge?
> Where is the knowledge we have lost in information?

So, to the Congress and the people of the United States, I say, let us resolve to make information more productive, to find the wisdom we have lost in knowledge, and to find the knowledge we have lost in information. Thank you very much.

Senator PELL. We now come to Ms. Virginia Gaines Fox, chief operating officer, Kentucky Authority for Educational TV, from Lexington, KY.

Ms. FOX. Good morning, Chairman Pell.

Thank you, distinguished panelists. You made a lifetime in public television and media and library work worth what we've done.

I come on behalf of the EDSAT Institute, and I bring greetings and regrets on the part of Shelley Weinstein, its distinguished president, and the board, that they could not join you.

We advocate a public domain education satellite. We believe that satellite is the technology which can help connect all of the fiber, microwave, and copper systems now in place which would implement much of the infrastructure which has been advocated by the previous panelists.

I believe EDSAT asked me to come because of KET's history and Kentucky's history. In the Seventies, we created a GED series which has enabled over 2 million adults to obtain a GED, and it is used in libraries, correctional institutions, and other public agencies and the armed forces worldwide. We are proud of that.

In 1986, KET and Kentucky pioneered by becoming the first State to put a satellite dish on every public school. We now have them on libraries, colleges, universities, vocational centers, adult learning centers, and county extension agencies.

This year, we will spend $1.6 million for a 24-hour transponder to get what we need. National business and international business and government have and will continue to make satellite a seller's market.

Hence, we advocate a public/private partnership and the assistance of the Federal Government to help us assure continued participation in the telecommunications revolution that is making this country into a stronger, more interesting and productive place to live.

Thank you, Mr. Chairman.

Senator PELL. Thank you very much, Ms. Fox.

[The publication entitled "Analysis of a Proposal for an Education Satellite" by the Edsat Institute, Washington, DC, submitted by Ms. Fox, is retained in the files of the committee.]

[The prepared statement of Ms. Fox follows:]

PREPARED STATEMENT OF MS. FOX

Good morning Chairman Pell and Chairman Williams. I would like to thank you for the opportunity to testify and bring you regrets from Edsat Institute President, Shelly Weinstein and the Distinguished Advisory Board members, that they could not be here to join you.

I am delighted to be here today on behalf of the Edsat Institute to speak in support of a public domain education satellite that will insure equitable and affordable access to this technological highway by all of this nation's elementary, secondary and vocational schools, public libraries, adult learning centers, colleges, universities, and government and community centers regardless of their geographic location or demographic composition.

We believe that the time for action is now. Satellite technology is truly the O Negative or "universal mixer" for the world of technology. While the regulatory, fiscal, and governance issues dealing with universal fiber optic availability are being resolved, satellite technology can connect existing copper, microwave, and fiber optic systems. With the advent of digitalized compression providing several hundred additional channels per satellite--satellite technology can serve as the primary transitional device for at least the next ten to twenty years, especially for remote rural areas.

What, you might ask, does KET have to do with this transformation using satellite technology?

For more than 20 years now, Kentucky Educational Television (KET) has provided educational and enrichment programming to schools throughout the Commonwealth. KET's videotaped instructional services are now used by 95% of the public and private elementary and secondary schools in the state—or close to 550,000 Kentucky school children each year. School libraries and librarians have been key to this widespread acceptance.

More recently, however, KET's commitment to providing quality educational opportunities for every Kentuckian led us to embark on a new and even more challenging effort. Beginning in the mid 1980's, Kentucky led the way nationally in the development of a satellite-based technology highway linking all of the major public resources in the state. Today, with more than 1,600 satellite dishes in every corner of the Commonwealth, KET's Star Channels system is helping to provide equity and excellence to every Kentuckian, especially those in the poorest, least populated, and most isolated areas of the state. Every public school, community college, state park, university, vocational technical school, and most public libraries in Kentucky now have satellite receive dishes.

In 1986, Kentucky was the first state to fund the construction of a comprehensive, statewide satellite delivery system. As a founding member of the Satellite Education Resource Coalition (SERC), teachers at the network center to interact simultaneously with students at hundreds of sites throughout Kentucky and the nation. This year, Kentucky is also completing construction of a new 60,000 sq. ft., state-of-the-art telecommunications facility to house the many new and diverse services that are now part of Kentucky's comprehensive statewide delivery system.

This past year, KET produced six live 50-minute programs each school day as part of the SERC distance learning effort, two 90-minute blocks of nationally distributed professional development programming for teachers each week, and a monthly "Issues and Answers" forum for Kentucky educators. In addition, KET used its satellite system to deliver undergraduate and graduate level college courses and professional development and training seminars to many different groups throughout the state.

Last year, more than 2,000 high school students in Kentucky and the 22-state SERC region enrolled in advanced math, science, and foreign language courses taught by Kentucky's satellite classroom teachers. The network also delivered more than 40 hours of professional development programming for teachers to 769 sites in Kentucky and 16 other states. Next year, KET plans to continue its current course offering and add several new courses, including interdisciplinary courses for elementary and middle school students. (For more information on KET's Star Channels services see Attachments A, B, C, and D.)

KET's Star channels programming is an integral part of Kentucky's widely publicized educational reform package, providing quality instructional opportunities to students and teachers in every corner of the Commonwealth.

But elementary and secondary education courses and professional development for teachers are by no means the only areas in which KET sees potential for its Star Channels system. A quieter but perhaps more important revolution is going on in the area of adult education and job training.

KET has a long history of providing specialized learning opportunities for the adult earner. KET is currently in the process of producing the third version of its nationally acclaimed GED series. Over the past fifteen years that series has helped more than 2 million adults prepare for their high school equivalency exam. The series is currently being used by public television stations, adult learning centers, military installations, and federal correctional institutions in 48 states, the District of Columbia, Canada, Mexico and Guam (see Attachment E). KET has also produced three other adult education series—*Learn to Read*, *Teach an Adult to Read*, and *Another Page*—which are also being used by public television stations and adult learning centers nationwide. (Kentucky's public libraries are a major user of KET's literacy and GED materials.)

In Kentucky, the problems in adult education are more serious than most. More than 50% of Kentucky adults do not have their high school equivalency degree, and as many as 400,000 Kentucky adults are considered functionally illiterate. Of every 100 Kentucky students who enter elementary/secondary programs, 32-33 will drop out before they finish high school. Of the 67 who graduate from high school, only 34 enter college. Of those 34, only 16-17 students will complete their college education.

This means that a whopping 87% of the adults entering Kentucky's workforce have less than a college degree.

Kentucky is working very hard to address this situation. An important facet of Kentucky's educational reform package was the establishment of the nation's first Workforce Cabinet, bringing together under one umbrella all of the state agencies and organizations which operate outside the traditional K-12, community college and university system (i.e. adult basic education, vocational/technical schools, Job training, etc.) KET is working closely with the new Workforce Cabinet to develop education and job training programs for this large, new target population. KET's Star Channels system will soon play a central role in delivering education and training opportunities to workers, employers, educators, and trainers throughout the state.

The statewide technology highway that Kentucky has built is now helping to improve the quality of life for every Kentuckian. Without it, pockets of workers and students across the state would continue to be disinfranchised—without access to the quality educational, informational and training opportunities now being distributed via KET's Star Channels system.

Nationally, the U.S. Chamber of Commerce recently testified at a subcommittee hearing on technology and competitiveness that during the next 10 years, 42% of America's workforce—or an estimated 49.5 million workers—will need to be retrained in order to keep pace with changing job skills and employer demands. In addition, another 37 million workers will need entry level job training during this same period.

Local schools, libraries, businesses, adult learning, and vocational education centers will play an essential role in making these expanded learning opportunities a reality. And their effectiveness will depend to a large extent on the information and services that can be delivered to them via the full range of new telecommunications technologies.

Internationally, the standard by which we measure a nation's product growth and productivity correlates closely with the extent to which that nation uses telecommunications—telephones, computers, radio, TV, facsimile, etc. If we apply that standard to the technology used in education and other public matters in the United States, our educational telecommunications infrastructure is comparable to that of a developing country.

The United States invests an average of $100 per student in computers for education versus $50,000 per worker in private industry and $100,000 per worker in high tech industries While all other sectors in U.S. society have been transformed by technology, the public and educational sector have remained relatively untouched.

However, transformation is starting to take place. This transformation is happening as a result of efforts such as the federally-funded Star Schools program, massive commitments to technology on the part of states such Missouri (for school broad training) and Kentucky (for educational reform), and the development of extensive inter and intra state library computer networks. Again, Kentucky's Department of Libraries, headed by Jim Nelson, is a leader in this movement.

Kentucky is truly a microcosm of the nation's education problems and solutions. Research recently completed by the U.S., Distance Learning Association states that of 37 states 95% of them receive distance learning.

However fragmented and embryonic this transformation may be, a growing market for an educational satellite already exists. A recent study by the Edsat Institute found that there are at least 111 providers of satellite-based instructional programming. Of this number, twenty of the major ones purchased more than 76,000 hours of satellite time in the 1990-91 school year.

While it was difficult to determine the distribution of programming at specific hours of the day, days of the week and months of the year, it is highly likely that at some point all twenty of these agencies will want to transmit programming at the same time. Concurrent programming by just these twenty agencies would create a peak demand for twenty transponders—nearly 84 percent of the capacity of a 24 transponder satellite.

The EDSAT Institute examined the financing alternatives for a public domain satellite. Public financing of an education satellite requires either a direct appropriation from the Congress, the contribution of an existing federal satellite, or appropriations by state legislatures. Private financing is feasible if the entity which takes ownership of the satellite, or guarantees a long term lease for its use, has a cash flow sufficient to assure payment or there is a governmental guarantee. of such payment in the event of default.

Although the actual size of the education market is unknown, the EDSAT Institute analysis indicates that it is substantial. It is estimated that twenty major education program providers will spend about $45.5 million during the 1990-91 school year for satellite time. It is plausible to assume that the expenditure by all educational agencies is substantially more than $50 million per year, since these twenty agencies represent only eighteen percent of the 111 purchasers.

A cash flow of this magnitude should be sufficient to support a single satellite if it can meet the peak time demand of the agencies using it. While federal funding for an education satellite might be available at some future time, the project need not be contingent upon it. The project could be self-financing if the buyers had an appropriate vehicle for securing, governing and managing the use of the satellite.

The inability to confirm the number of purchasers and how much time they would use constitutes a major obstacle to the immediate acquisition of a satellite for education regardless of how it is financed. Neither the actual amount of transponder time needed nor the technical configuration (C-Band and Ku-Band) at the satellite could be determined. Obviously, decisions about the design, construction and launch of an education satellite cannot be made until these questions are answered. The documented usage of satellites for instructional programming indicates that there presently exists a market large enough to justify at least some form of cooperative management and purchase of transponder time. For the longer term, it sets the stage for the eventual acquisition of a satellite dedicated to education.

There is legitimate concern among the stakeholders that something be done now to lower costs and provide predictable access for those education agencies which presently are using satellite or have a strong interest in doing so. The governors, the president and the congress are seeking innovative ways to achieve national education goals. Satellite technology can play an important role in such a strategy because it can provide access to multiple education programs of an interactive nature simultaneously to every part of the nation at a relatively low unit-cost.

In the present commercial marketplace, the rising and unpredictable costs of transponder time are at best limiting the use of televised instruction in rural and often poor school districts: at worst, some school districts are beginning to reduce availability of these instructional resources. A strategy is needed that will enable education agencies to secure many of the benefits of a dedicated satellite now while planning continues for the building and launch of such a satellite in the future.

What do we see as the role of the federal government? That role is still open in our opinion. Currently, we see three possible choices for federal involvement:

(1) A "partner" role, where the federal government would grant $180 million on a one-time-only basis to design, build and launch a satellite dedicated to education. Such an investment is a logical follow up to the one hundred million dollars they invested in the Star Schools program.

(2) A loan guarantee for investing states and entities so that they can launch their own education satellite.

(3) Subsidy of partial transponder costs to assure stable and affordable costs for users.

The states and schools are demonstrating the need and desire to use this technology. Without low cost, affordable access, there is little hope of the sustained, systemic transformation necessary for the United States to enter the new millennium as a productive and competitive nation.

Thank you for your time and consideration in taking this issue under advisement.

MEMO

TO: Ginni, Tim, John, Liz, Education Staff and Interactive Learning Staff

FR: Leslie

RE: Satellite Classroom Enrollments for 1991-92

DT: June 26, 1991

COURSE	90 - 91 TOTAL	SERC 91- 92 TOTAL	KENTUCKY 91-92 TOTAL	TOTAL 91-92
Japanese I	1239	1299	31	1330
Japanese II	309	497	5	502
Russian I	876	702	2	704
Russian II	181	313	0	313
Macroeconomics	371	228	0	228
Microeconomics	233	189	0	189
World Geography	488	331	0	331
Prob/Stat	579	221	123	344
Discrete Math	459	196	123	319
Physics	329	198	196	394
Latin I	0	287	292	579
PreCalculus	0	85	82	167
German I	205	0	246	246
German II	0	0	95	83
TOTAL	**5269**	**4546**	**1195**	**5741**

2126 - Students taught by Kentucky Satellite teachers
1195 - Enrollments for Kentucky
1072 - Kentucky students (count only Prob/Stat, not Discrete Math - they are the same students)
1434 - SERC Students in South Carolina courses
1459 - SERC students in Kentucky courses
1832 - SERC students in Nebraska courses

KET'S TWO-WAY SATELLITE SYSTEM BRINGS KENTUCKIANS TOGETHER IN DIALOGUE

Star Channels Technology Permits State-wide Meetings,Seminars Without Travel

With more than 1,600 satellite dishes installed throughout the state, KET's pioneering Star Channels satellite system has created a state-wide forum for the exchange of ideas.

The system developed by KET delivers live productions simultaneously to 1600 sites throughout the state. The element that sets KET's satellite system apart from all others and has made it a national leader in telecommunications is a keypad which enables participants to respond to questions during the program.

According to KET Network Director for Broadcasting Tim Tassie, approximately 160 of the satellite sites are equipped with the entire interactive technology package, consisting of the keypad, a telephone, and a computer.

"These sites can interact in additional ways which enhance the teleconference or seminar for both presenter and participant. Over the next few years we hope that all 1600 sites will become so equipped," said Tassie.

The Star Channels satellite system was developed to beam live, interactive and advanced high school courses to even the most remote areas of the state where they previously were not available. Since their inception in 1989, Star Channels courses have been recognized nationally for their role in filling the gaps in course offerings in Kentucky's educational system.

However, with satellite dishes now at every public school and some public libraries, vocational schools, and state parks, business and government organizations are beginning to realize the potential of a two-way communications network which encompasses virtually the entire state.

KET has already completed projects using the Star Channels satellite system with several public and private groups and has projects in the works with about 20 more.

The Governors Scholar program delivered a two-hour orientation teleconference to sites throughout the state this year with Star Channels technology. Agricultural county extension agents held a seven-session workshop via Star Channels for about 100 agents at 20 sites in the state. In April, the Kentucky Department for Social Services used the technology for a three-hour teleconference on training foster parents.

The Kentucky Development Committee, a group of leaders from public and private agencies who work to stimulate economic development in the rural areas of the state, will use the Star Channels system this fall to spread information to communities throughout Kentucky.

The committee believes the most effective development programs require cooperation among all members of a community together with local, state and federal government. In the past, extensive travel was necessary to encourage cooperation among the various sectors in communities throughout the state. But, it was also expensive.

"When you have 20 or 25 agency people who have to travel to a certain town, stay there for a period, and then travel back home, it becomes quite expensive and you reach a point where you just cannot continue," said committee member Helen Weissinger.

Through the Star Channels satellite system, the committee will deliver live forums made up of experts on rural development and representatives from communities where successful development projects have been completed.

At the receptor sites, a unique wireless keypad developed by KET allows participants to respond to questions throughout the program. The responses are delivered via telephone lines back to KET within seconds and displayed on-screen. In addition, participants can call in by telephone during the program.

Weissinger says the Star Channels system is "both laborsaving and timesaving."

"We need to get information to everyone, from elected officials and small entrepreneurs to the media and educators. By using the Star Channels technology, we can reach them all at a state and local level to explain the ways in which they can work together for progress," said Weissinger.

When the Kentucky General Assembly passed the 1990 Kentucky Education Reform Act, KET took advantage of its new capacities with the Star Channels technology to explain the act and its implications in teleconferences delivered to educators and administrators across the state.

The system was also used to deliver professional development seminars to teachers, helping them meet the continuing education requirements of the KERA.

In much the same way, the Continuing Legal Education Commission of the Kentucky Bar Association will use the Star Channels satellite system to deliver a series of training sessions this year.

The sessions, designed to help beginning attorneys develop practical skills not learned in the classroom, make up one area of the Kentucky Bar Association's continuing education program. Traditionally, the seminars were held each year in Frankfort. But Lexington attorney and commission member Brad Cowgill said it was always difficult for new lawyers to take time off to travel to a two- or three-day seminar.

"We have always tried to make the meeting as convenient as possible," said Cowgill. "But we just cannot be as convenient as Star Channels are."

Cowgill said the commission is interested in transferring other areas of its program to Star Channels delivery so that attorneys could fulfill continuing education requirements via the satellite system.

"From the standpoint of our involvement with continuing education, the legal profession has to be one group that can best take advantage of the Star Channels system. We have 10,000 people spread out across the state who are obliged to continue their professional training and education," said Cowgill. "For us, cooperating with KET to help meet that need is a dream come true."

In June, the last in a four-part series of teleconferences designed to help Kentucky businesspeople adapt to changing economic conditions will be conducted at 11 sites throughout the state via Star Channels.

Produced by the Kentucky Science and Technology Council and the Kentucky Office of Business and Technology, each teleconference in the pilot project titled "Innovations" consists of a panel of experts discussing specific opportunities, dangers, and necessities in the current economic situation.

Kris Kimel, executive director of the Kentucky Science and Technology Council says that because of the enthusiastic and positive response among participants, the council plans to make the Innovations project a regular series next fall. Kimel says the Star Channels system holds particular promise for medium- and small-sized businesses.

"The teleconferences give people across the state the opportunity to take part in a forum conducted by experts," Kimel said. "I see major potential for all sorts of outcomes beyond simply receiving and sending information. The sessions have already stimulated a great deal of discussion and networking among local businesses."

Other businesses who have expressed interest in using the Star Channels technology to fulfill their own particular communications needs are the World Trade Center, the Kentucky Literacy Commission, and the Kentucky Arts Council.

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KET Star Channels Professional Development Program Summary
1990-1991

KET Star Channels Professional Seminars
90-minute Seminars, Tuesday afternoons beginning at 4:00 pm ET

			Sites Registered		
			In State	Out of State	Total
Problem-Solving with Manipulatives	Five seminars (7.5 hrs.) Sept. 18-Oct. 16	Content Design: Sheila Vice, Math Cons. Production Assistance: Geri Oberg, Math Cons. Research Component: Dr. Linda Sheffield, NKU Presenters included 17 Kentucky elem teachers	94	48	142
Integrating Prob/Stat & Discrete Math into HS Curriculum	Three seminars (4.5 hrs.) Oct. 23-Nov. 13	Content Assistance: KET Satellite Teachers Ann Booth & Tom Graviss Presenters: Three nationally-recognized mathematics educators—Warren Myers, Gail Burrill, and Lee Yunker—with additional comments by Iris Carl, NCTM President	71	47	118
Teaching Physics Conceptually	Three seminars (4.5 hrs.) Nov. 28-Dec. 12	Content Designer: KET Satellite Teacher Chuck Duncan Presenters: Paul Hewitt (Physics Instructor, City College of San Francisco and originator of approach) and Chuck Duncan	59	46	105
Proficiency-Oriented Foreign Language Instruction	Four seminars (6.0 hrs.) Jan. 8-Jan. 29	Content Designers: KET Satellite Teacher Ruth Styles, Dr. Linda Worley, University of Kentucky KDE Contact: Tony Koester, Prog. Manager Presenters: Content designers, two university resource people, Dr. June Phillips, executive director of the TN Foreign Language Institute (keynote), and six KY foreign lang. teachers	51	20	71

			Sites Registered		
			In State	Out of State	Total
Writing Across the Curriculum	Three seminars (4.5 hrs.) Feb. 5-Feb. 19	Content Designers: KDE—Gail Larkins and Tish Wilson, Prog. Consultants/Language Arts; Liz Sinor and Joy Gooding, teachers Presenters: Gail Larkins and ten teachers and school administrators	88	27	115
Educating and Inducting Beginning Elementary School Teachers	Two seminars (3 hrs.) Feb. 26-March 5	Content Designer and Presenter: Dr. Elizabeth Goldman, Prof of mathematics education, Peabody College, Vanderbilt University	61	15	76
Cooperative Learning	Three seminars (4.5 hrs) March 12-March 26	Content Designer and Presenter: Nancy Whitlock, KDE consultant and Adm. Asst., Spencer County Schools Production Assistance: Beth Hargett, KDE Staff Dev.	113	29	142

Totals: 769 sites registered of which 533 were individual school sites and 226 were boards of education or other districtwide or regional educational organizations (representing several schools). For example, one site is a district-wide cable station for Fairfax County Schoo Virginia; another is the North Carolina Dept. of Education and its regional centers. 16 states have participated. 34.4 hours of televised training produced in this category.

KDE/KERA Training (Kentucky Only)

Education Reform: The Teachers Perspective	Two seminars (2.5 hrs) Sept. 4-11	KDE Contact: Rita Lindsay Osborne, Steve Henderson, Roger Pankratz, et al.	
School-Based Decision Making	Oct. 15 (6 hrs)	KDE Contact: Kay Freeland, Dir. Curriculum and Staff Development Presenter: Dr. Jim Mitchell	Figures on # participati districts to come

Special Education Update	Jan. 14 (1.5 hrs)	KDE Contact and Presenter: Linda Hargan, Assoc. Superintendent, OEEC	
Secondary Vo-Ed	Jan. 30 (1 hr)	KDE Contact: Melissa Briscoe	
Facilitator Training	Feb. 13 (1.5 hrs)	KDE Contact: Rita Lindsay Osborne, Asst. Dir. Curriculum & Development	
Multi-Dimensional Assessment	Feb. 15 (6 hrs)	KDE Contact: Rita Lindsay Osborne, Asst. Dir. Curriculum & Development, and Beth Hargett, Program Consultant	Figures on # participati districts to come
Primary School Update	April 16 (1 hr)	KDE Contact: Linda Hargan, Assoc. Superintendent (OEEC)	
Exceptional Children Update	May 7 (1 hr)	KDE Contact: Linda Hargan, Assoc. Superintendent (OEEC)	
Our Schools: Issues and Answers	Nine seminars (9 hrs) Sept. 6-May 2	KY Dept of Education	

Totals: 29.5 hours televised training produced

Special Topics

KY ACES (Activity-Centered Elementary Science Initiative)	Ten seminars (10 hrs) Nov. 8-April 25	Content Designer: Michael Howard, KY Science & Tech Coun. Presenters: Mike Howard and guests (elem classroom teachers, university specialists) KDE Contact: Tricia Kerr
Governor's School for the Arts	Sept. 27 (2 hrs)	Contact: David Thurmond, KY Center for the Arts Presenters: David Thurmond, six instructors from the Governor's School
Foreign Language Experience	Nov. 20 (1 hr)	Contact: Leslie Flanders, KET
Governor's Scholar Orientation	April 21 (2 hrs)	Contact: Lil Press, Director Governor's Scholars
Radon Testing	May 9 (1.5 hrs)	Contact: Patrick Holmes, Radiation Control, CHR

Totals: 16.5 hours televised training produced

TOTAL # Hours Produced (All Training): 80.5 hours live, interactive satellite-delivered staff development

KET Star Channels Professional Seminars

1991-92 Preview

Professional Development Opportunities by Satellite. KET is pleased to offer educators another academic year of high quality, convenient professional development opportunities via its innovative Star Channels satellite system. During the upcoming school year, KET will offer seminars on a wide variety of topics. The seminar topics have been selected for their relationship with accomplishing the goals and objectives of the Kentucky Education Reform Act. A local district Professional Development Coordinator may award professional development credit to certified personnel for participating in these seminars if the seminars are appropriate and have been designated as a district and/or school need.

Practical and Convenient. Each series of KET seminars includes a sequence of workshops, each 90 minutes in length, supplemented by print materials and, often, a discussion center on Learning Link, KET's electronic database. These seminars feature:

- stimulating ideas and useful research presented by inspirational educational leaders, representing a variety of content areas and viewpoints, which you can use in your classroom.
- practical advice, suggestions, and demonstrations from your colleagues, fellow teachers who have successfully implemented featured programs in their classrooms.
- videotaped visits to classrooms where you can see both how teachers employ featured instructional strategies and how students respond.
- information presented in several sessions, enabling participants to apply suggestions to their own situations between sessions.
- the convenience of attending the workshop in your own school or district.

Live and Interactive. KET Star Channels Professional Seminars are live productions; each seminar has been carefully designed to be very much like a live workshop occurring right in your school. Active participation is encouraged both at the site and with the television presenters. During the seminar, participants may communicate with the presenters by telephone and a toll-free number and/or by keypad, if participating at a school outfitted with KET's satellite equipment cabinet (the workshops are not limited to schools with KET's satellite equipment cabinet, however). A handy "Site Coordinator's Guide" will help prepare sites to fully participate in these seminars.

Timely Topics. You'll find a brief description of the seminars we're offering next year in this packet. Topics were selected based on results of an extensive survey of staff development needs completed this spring. Topics include: primary school (identified in Kentucky as a major need on our staff development survey), integrated language arts, the collaborative teaching model, new directions in foreign language instruction, middle school teaming, middle school mathematics, arts in education, and cooperative learning. Content designers for these seminars include Kentucky Department of Education specialists, university resource people, and Kentucky teachers.

A Free Service for Kentucky Schools. In Kentucky, KET Star Channels Professional Seminars come to you at no charge. In order to support the seminars, a site will need to provide:

- a site coordinator/s who will be responsible for hosting the workshop, operating the television equipment, handing out and collecting materials, distributing and collecting workshop evaluations, etc. KET will provide a "Site Coordinator's Guide" to help coordinators facilitate these seminar.
- copies of seminar print materials. One copy of the print materials will be sent to each site to be duplicated for participants.
- a comfortable site for the seminar, equipped to receive the satellite transmission. Access to a phone in the room will encourage telephone interaction.

Registration. We hope the topics and advantages of KET Star Channels Professional Seminars will encourage you to integrate these seminars into your professional development plan for the upcoming school year. You may pre-register now as a site for individual series or for the entire package. You'll find a registration form at the conclusion of this packet. We urge you to register this spring for the fall seminars to ensure that you receive workshop materials and other timely information before the seminars begin.

For more information about KET's Professional Development Program, contact Nancy Carpenter, Teacher Resources Manager, KET, 600 Cooper Dr., Lexington, KY 40502, (606) 233-3000.

CALENDAR

KET Star Channels Seminars • Tuesday Afternoons • 1991-92

This Calendar is subject to change. To ensure that you receive seminar materials and any updates or schedule changes, please register for specific seminars by contacting KET's Professional Development Program. Seminar times are 4:00 pm ET/3:00 pm CT to 5:30 pm ET/4:30 pm CT.

Sept. 17, 24, Oct. 1, and 8	Primary School, Seminars 1-4
Oct. 15, 22, and 29	Integrated Language Arts, Seminars 1-3
Nov. 12 and 19	Special Arts in Education Workshops 1-3
Nov. 26, Dec. 3, and 10	The Collaborative Teaching Model, Seminars 1-3
Jan. 7, 14, and 21	New Directions in Foreign Language Instruction, Seminars 1-3
Jan. 28, Feb. 4, and 11	Spotlighting Middle School Teaming, Seminars 1-3
Feb. 18, 25, Mar. 3, and 10	Middle School Mathematics, Seminars 1-4
Mar. 17, 24, and 31	Cooperative Learning II, Seminars 1-3

Overview of 1991-92 KET Seminar Topics

Tuesday Afternoons • Beginning at 4:00 pm ET/3:00 pm CT • 90 Minutes Each

Primary School

This series will present the critical attributes of a developmentally appropriate primary school program. The critical attributes to be covered will include: developmentally appropriate educational practices, multi-age/multi-ability classrooms, continuous progress, authentic assessment, qualitative reporting methods, professional teamwork, and positive parent involvement.

Target Audience: K-3 classroom teachers and aides, elementary principals, elementary supervisors.

Schedule: Four seminars (6.0 hours of televised training), September 17-October 8.

Integrated Language Arts

This three-part series will address ways to integrate the five language arts areas—writing, reading, speaking, listening, and observing—into a sound instructional program. Teacher-presenters and professionals will discuss and demonstrate ways to integrate all the areas within the language arts classroom as well as ways to carry these abilities into other areas of the curriculum.

Target Audience: K-12 language arts teachers.

Schedule: Three seminars (4.5 hours of televised training), October 15-October 29.

Special Arts in Education Workshops

These hands-on arts workshops, presented by artists who have worked in schools and innovative teachers, will give elementary teachers a variety of creative ideas and useful resources which they can take back to their classrooms. Among the resources to be presented are KET instructional series such as ***Imagine That***, a creative dramatics series, and ***Telling Tales***, a storytelling series, with tips on how these can be effectively used. Additional workshops are planned to be presented from time to time during the school year.

Target Audience: Elementary teachers and arts specialists.

Schedule: Two seminars (3.0 hours of televised training), November 12-19.

The Collaborative Teaching Model

The Collaborative Teaching Model focuses on appropriate delivery of educational services in the general education setting for at-risk students and those students with educational disabilities. These sessions will provide participants with the most basic information necessary to implement this model, including the philosophical basis for the model, problem solving tech-niques, team building, scheduling, and communication skills. Sessions will include a practical overview of the research and verified best practices for collaborative models; teacher-to-teacher factors for success; specific methods for problem solving for students with educational disabilities and those considered to be at-risk for failure; and steps for creating and implementing a collaborative team.

Target Audience: General, special education, Chapter 1, and gifted education teachers; principals; coordinators; instructional supervisors; counselors; psychologists; speech language pathologists; and occupational and physical therapists.

Schedule: Three seminars (4.5 hours of televised training), November 26-December 10.

New Directions in Foreign Language Instruction

During January, 1991, KET presented four very well-received seminars for foreign language teachers—"Proficiency Oriented Foreign Language Instruction"—which focused on speaking and listening skills. For 1992, KET will provide a series focusing primarily on reading and writing skills in a proficiency-oriented classroom. Our new series will employ a format seimilar to that of the first, which featured a nationally-known speaker, university professionals, teachers of French, German, and Spanish, and visits to a variety of foreign language classrooms. (Participation in "Proficiency-Oriented Foreign Language Instruction" is not a pre-requisite.)

Target Audience: Middle and high school foreign language teachers.

Schedule: Three seminars (4.5 hours of televised training), January 7-21.

Spotlighting Middle Level Teaming

This series comes on the heels of the publication of the Carnegie Council's Report of the Task Force on Education of Young Adolescents which calls for, among other things, the creation of "schools-within-schools . . . students and teachers grouped together as teams." Just how do teachers and administrators begin the process of establishing and working together as teams? These seminars will demonstrate effective teaming strategies and the development and implementation of interdisciplinary/thematic units. Middle level teaching teams will show the developmental process of their work together and with students.

Target Audience: Teachers and administrators who work with middle grade students.

Schedule: Three seminars (4.5 hours of televised training), January 28-February 11.

Middle School Mathematics

KET will continue in our current direction of providing teacher training related to the National Council Teachers of Mathematics curriculum standards. For the spring of 1991, we will offer four seminars on middle school mathematics, providing model lessons and materials developed, tested, and presented by trained teachers. The seminars will cover the following topics: Probability Experiments, Measurement and Data Analysis, Parts and Wholes, and Geometry. The use of instructional technology (computers, calculators, etc.), manipulatives, and problem-solving strategies also will be featured.

Target Audience: Middle school mathematics teachers.

Schedule: Four seminars (6.0 hours of televised training), February 18-March 10.

Cooperative Learning II

This series is a follow-up to the three-part series offered on cooperative learning during the spring of 1991. The first series aimed to provide teachers with a general awareness of cooperative learning strategies ranging from the research about advantages of cooperative groups to specific information on grouping strategies. The presenter from this first series, Nancy Whitlock, plans to return with a series of seminars which go beyond the awareness level to provide more in-depth training in two cooperative learning models (the Johnson and Johnson model and the Johns Hopkins model). The training will combine the presentation of research and information with an application of this information in group simulations on site.

Target Audience: Teachers, K-12, with some training in cooperative learning (eg., participation in the spring 1991 version of "Cooperative Learning").

Schedule: Three seminars (4.5 hours of televised training), March 17-31.

Other Professional Development Opportunities on KET Star Channels

Kentucky Activity Centered Elementary Science—KET plans to continue working with the Kentucky Science and Technology Council and the Kentucky Department of Education to provide this training for elementary science teachers. Look for two 60-minute programs a month, Thursday afternoons (dates to be announced) beginning in early fall.

KDE Teleconferences & KERA-Related Training—The Kentucky Department of Education will continue to provide state and federal updates, discussion programs, and other important and timely information to schools via KET's Star Channels. From time to time, the department and KET will jointly present information and training specifically related to KERA.

Special Topics—Watch for additional special topic seminars and other professional development opportunities next year. Some topics under consideration include encouraging good study skills and teaching for global understanding.

What teachers say about KET Star Channels Professional Seminars—

If it's Tuesday, it must be Professional Development Day on KET! This year, on Tuesday afternoons alone, KET has provided over 34 hours of staff development training as a part of its KET Star Channels Professional Seminars Program. (This does not include the over 42 hours of additional training and information for educators which has aired via KET's Star Channels during the course of the school year.)

All KET seminars have an evaluation component. Here's a sampling of what we've heard from teachers and site coordinators who have participated in KET Star Channels Professional Seminars this year:

About *KET's live, satellite-delivered training in general*

"It's a great way to become aware of new teaching techniques!"

"The convenience of working in our own school was a great help!"

"Very good idea. I wish more teachers would take part."

"This is an excellent, efficient way of offering professional development which is more appropriate for teaching specialties. Something interesting I think that is beginning to happen here is that our staff is beginning to sign up for more than one seminar even though they have already completed required hours. It is convenient, interesting and offered in small enough doses that teachers are not overwhelmed by the amount of information presented at one time."

Enjoyed most? "Punching in answers . . . active participation . . . viewing the animated graphic results from using the keypads . . . answering on the keypads . . . "

"The series was excellent. I like short after-school sessions."

About *Problem-Solving with Manipulatives (PS MET)*

"The teachers did an outstanding job. We really need to share ideas and this was an excellent way to let others learn."

"My students will benefit from this training."

"I thought all the programs were informative and creative."

"This was one of the most valuable professional development training programs I've had in years."

"It was fun getting together with other teachers, discussing new ideas, and learning new teaching techniques."

About *Integrating Prob/Stat and Discrete Math into the High School Curriculum*

"The professionalism of the speakers made the program enjoyable to watch."

"Relating math to real-life type situations brings interest to the students."

"I enjoyed the variation of activities."

"Our school is pleased to have had the opportunity to participate in these seminars."

About *Conceptual Physics*

"This was an excellent seminar. It was exactly the kind of program I needed and could profit from."

"Very informative and thought-provoking."

"Well done—great demos! Good examples—concise and clear explanation. Secured some good tips and practical info."

"[The series] refreshed my memory and opened my eyes to new (old) ways of teaching—especially the reminder that not everything has to be mathematical in physics."

About *Proficiency Oriented Foreign Language Instruction*

"I enjoyed the classroom activities focusing on getting students to interact."

"I got several new ideas as well as discovered things I was already doing were proficiency based."

"This was one of the most valuable inservice times I've spent as it was on a topic of singular interest."

"We appreciated having the materials packets to accompany the sessions. This was a good way to get our language teachers together to learn and share . . . the sessions served as a stimulus for further discussion among ourselves. Seeing the classes in action was also useful to encourage people who aren't sure quite how to proceed or what the results will be."

About *Writing Across the Curriculum*

"I've become inspired enough to write a writing exercise as a follow-up to our reading and discussion after seeing Hamlet."

"I like the excellent examples of how to integrate writing in several curriculum areas at both the elementary and high school levels."

"It allows one to view different ideas and techniques. Consequently, new ideas become valuable teaching tools that allow more teacher options."

"The art teacher's ideas were relevant to my teaching area. . . . I am planning on writing poetry to pictures of art by famous artists."

[poss additions: numbers of sites/teachers, number of states, comments for coop learning]

KET Star Channels Professional Seminars

Advance Registration

School Registration Form—1991-92 Seminars

To advance register, complete and return this form by ***June 15, 1991*** to Darlene Carl, KET, The Kentucky Network, 600 Cooper Dr., Lexington, KY 40502-2296.

Site Information

School Name____

Contact Person/Title*____________________________________

Address__________________________Telephone Number________

City__________ ______________State_________Zip________

***The Contact Person is the person with whom KET will maintain contact prior to the workshop. Some information may be sent our during the summer. If there is another address to which this information should be sent (for the summer only), please indicate that here:**

Summer Address/Phone____________________________________

Registration Options:

1. You may **register for the complete package** of 1991-92 KET Star Channels Professional Seminars (listed below). If you would like to register for this package, check the following box:
________**Register Site for 91-92 KET Professional Development Package**

2. Or you may **register for each individual series**. Please use the box below to indicate which seminar series you are registering for.

	Register Site Now
√Primary School	________
√Integrated Language Arts	________
√Special Arts in Education Workshops	________
√The Collaborative Teaching Model	________
√New Directions in Foreign Language	________
√Spotlighting Middle School Teaming	________
√Middle School Mathematics	________
√Cooperative Learning II	________

Please Note: While pre-registration is recommended, especially for the early fall seminars, another registration opportunity will be offered at the beginning of the school year.

MAY 20, 1991

KET STAR CHANNELS USERS SUMMARY

The following is a current listing of all groups which have discussed firm or potential projects for delivery on KET Star Channels which will/may need support beyond the resources of the Distance Learning staff.

GROUPS WITH CURRENT/FUTURE COMMITTED PROJECTS -

Organization: **Kentucky Science and Technology Council, Inc.**

Contact People: Kris Kimel, Executive Director

Project: "Innovation" pilot business teleconferences. Two are completed, two to go. Complete information is on file. They are very interested in continuing this project in the fall.

Organization: **Cabinet for Human Resources**
Department for Health Services/Radon Program

Contact People: Jeana Phelps, Coordinator

Project: Two teleconferences (May 9, 1991 and September 1991) on radon in schools. Limited funds are available ($5000) through a federal grant to cover transponder time, telephone line charges and location shooting at two school sites (for the second teleconference only). Nancy Carpenter is coordinating this project.

Organization: **Kentucky Bar Association**

Contact People: Jan Clark, Brad Cowgill

Project: Several meetings in the fall, 1990, resulted in a plan for the Kentucky Bar Association to provide training to lawyers on three occasions next year. Productions will originate outside KET - from the University of Louisville in November, from the University of Kentucky in January, and from Northern Kentucky University in February for microwave to KET and uplinking to sites at community colleges and state parks.

Organization: **University of Kentucky College of Library and Information Science**

Contact Person: Joy Terhune

Project: A proposal to KET was submitted in February, 1991. The Education staff is working with them to implement an in-service program for school librarians. There would be six sessions (90-120 min.) over the 1991-92 school year. UK may produce, if necessary.

Organization: **Eastern Kentucky University College of Nursing**

Contact People: Dr. Carol Baugh and Deborah Whitehouse

Projects: EKU is currently delivering Nursing 280, an introductory course, through the Star Channels system. It is produced on their campus in Richmond

and delivered to sites in Corbin and Somerset. This course is taught once weekly in three-hour sessions for nine weeks. They have written a proposal for federal funding which would extend this project into the 1991-92 school year. They also plan to expand the number of receive sites. If we can efficiently import usage of the keypad system to out-of-house productions, they are interested in exploring its use in their course.

Organization: **UK College of Agriculture**

Contact People: Dr. Carla Nichols, Mark Eclov,
Rodney Kelly, Director of Program Services Division in the
Office of Secondary Vocational Education

Projects: An April meeting with Dr. Nichols produced several tentative ideas for KET cooperation with UK College of Agriculture including ideas for "This is Kentucky" topics and other agricultural programming.

Dr. Nichols will be the teacher for a high school course in advanced animal science delivered via Star Channels. The course will air Mondays, Wednesdays, and Fridays beginning in January, 1992, at 11 a.m. (ET), on the elementary side of the transponder. Provisions in the schedule have been made. Production is planned to be done in KET's distance learning studios. Production logistics are yet to be determined. This is a pilot course to about 15 schools and will culminate with a test which, if passed, will make students eligible for college credit in the course.

GROUPS WITH COMPLETED PROJECTS & FUTURE PLANS -

Organization: **University of Kentucky/Agricultural County Extension Agents**

Contact People: Ray Myer, Steve Riggins, Mark Ecloff

Project: Discussions with them last fall led to a seven-session workshop on price risk management for county extension agents. The workshop was held two days a week during November and December. Evaluations indicated good reception of this form of training at approximately 20 sites with approximately 100 participants. The county extension agents were very interested in pursuing future projects including a regularly scheduled informational teleconference.

Organization: **Eastern Kentucky University/Kentucky Department for Social Services**

Contact Person: Bruce Wolford

Potential Projects: Several discussions with them led to a three-hour teleconference to many sites in Kentucky for the purpose of training foster parents. The subject was sibling rivalry. A one-hour facilitator training session was held in February and the teleconference followed on April 13, 1991. A follow-up report is expected soon.

Organization: **Kentucky School Boards Association**

Contact Person: David Keller, Executive Director

Project: They did training for school board candidates last fall. They would like to explore further activity.

Organization: **Governors Scholars**

Contact Person: Lil Press, Director

Project: A meeting in December produced several ideas for use of Star Channels by Governors Scholars program. One which has been implemented is a two-hour orientation teleconference to several geographically distributed sites eliminating the need for Governors Scholars staff travel. Results will soon be known.

Organization: **University of Louisville**

Contact Person: Jim Cheski

Projects: U of L has delivered several programs through Star Channels, including three nursing teleconferences, A Saturday Career Day program, and a teleconference by an education expert to a university in Florida. We expect that many more programs will come from them.

Organization: **University of Kentucky**

Contact Person: Paul LeVeque

Projects: UK has delivered several programs through Star Channels, including full engineering and nursing courses and several teleconferences. UK generally uses its own uplink so that only transponder time is needed. We expect that many more programs will come from them.

GROUPS WITH SPECIFIC PROJECTS - SPECIFIC TIME NOT YET COMMITTED

Organization: **Kentucky Workforce Cabinet**

Contact People: Sandy Gubser, Lucy Nelson, Beth Brinley

Potential Projects: Several possibilities have been discussed, beginning with staff training planned for next fall. There will potentially be three initial programs on learning disabilities, followed by other topics to be determined. Future projects may include direct teaching to adult students.

Organization: **Kentucky Development Committee**

Contact Person: Helen Weissinger

Potential Project: This project would take economic development to several rural pilot sites in the state. Two site facilitator training sessions would take place in late August and September. A half-day Saturday seminar in October would complete the project. An extensive file, including input from many state agencies and organizations, is being kept.

Organization: **Kentucky Department of Personnel**

Contact People: Barbara Roberts

Potential Project: Two short teleconferences this fall regarding health insurance options for (a) school employees and (b) other state workers such as park, state vocational school staff, etc. Would be held in the afternoon in early September.

Organization: **Phi Delta Kappa**

Contact People: Bob Carter, Eve Proffitt

Potential Project: We are currently discussion a teleconference regarding research as it relates to KERA. The teleconference could possibly take place in the fall, 1991, and include the need for research in its broadest definition to document the successes of educational reform.

Organization: **World Trade Center, Lexington**

Contact People: Kenneth Current, Executive Director
Jennifer Kane, Assistant Director
Linda Richardson (World Trade Center, Oklahoma City)

Potential Projects: We have had several discussions with World Trade Center staff beginning with Sandy several weeks ago. We have discussed providing training via Star Channels, which would replace on-site workshops currently held in Lexington, Louisville, and Northern Kentucky. 1991 workshop topics include foreign exchange, political and economic risk and exports insurance. They currently charge a $22 nonmember fee for these half-day workshops. A memo and other information are on file.

Organization: **UK Food and Nutrition Extension Program**

Contact People: Dr. Darlene Forrester

Potential Projects: KET agreed to be part of a proposal to the USDA for funds to conduct a training program for food workers in public facilities. If funded, the Star Channels system would deliver training to food preparers in schools across the state. Funding notifications will be sent in mid-April. The proposal is on file.

Organization: **Kentucky Literacy Commission**

Contact Person: Audrey Haynes

Project: KET agreed to be part of a grant to the ARC to deliver literacy training. The grant would provide for three training sessions for literacy providers. Results will be known soon.

Organization: **Kentucky Arts Council**

Contact Person: Marty Newell

Potential Project: Application pending to NEA for funds under a rural initiative grant for state arts agencies. This would be a series of technical assistance workshops for rural arts organizations (grantswriting, audience development, programming, etc.). Would like to produce in conjunction with KET. In planning stages; earliest air date fall, 1991. Would like up to 10 programs for community groups to air in evening or Saturdays (for convenience of volunteer boards who typically work during the day); also 2-3 programs after school for teachers which KET Professional Development program can accommodate.

Organization: **Eastern Ky University - Social/Behavioral Science**

Contact Person: Dr. Ken Nelson

Potential Project: Application pending to Fund for the Improvement of Post-secondary Education (one of 200 proposals, selected from over 2,000, for second round consideration). Proposal is for a four-year project designed to improve teaching of high school world civilization courses. Scope: ten 90-minute programs to air spring, 1992; monthly assessment and continued inservice in 1993 and 1994. Applied for $2600-2700 for KET out-of-pocket, not including transponder time. Under consideration: use of keypads, producing at EKU and use of KET only to uplink.

Organization: **Academic Edge**

Contact Person: George Goldsworthy

Potential Project: Application pending to National Institute of Child Health & Human Development/US Dept. of Health & Human Services--should hear any day. If funded, would use 1991-92 to plan content and produce videotape materials for live, interactive (using keypads) courses to be uplinked by KET beginning (earliest start date) Sept. 1992. Scope: 20 one-hour broadcasts from our studios. Applied for $1,650 per broadcast for production personnel, facilities, interactive programming, and transponder time (based on figures in support letter from Sandy Welch); plus $5,000 for set, make-up, etc.

Organization: **Western Kentucky University**

Contact Person: Mike Lassiter

Potential Projects: Several conversations have been had with them regarding teleconferences on school reform. They would produce for KEWS to KET. The first is planned for fall, 1991.

Organization: **EKU Department of Correctional Services**

Contact People: Bruce Wolford, Director
Fred Kolloff, Director of Division of Media Resources

Potential Projects: Bill Wilson has been discussing several project ideas with them. Proposal summaries are on file.

Organization: **UK Special Education Proposal**

Contact People: Dr. Deborah Slaton

Potential Project: KET agreed to be part of a proposal to the USOE for funds to conduct a project to offer three courses toward special education certification. Courses would not begin until fall 1992. Proposal is pending.

Organization: **Gov. Office for a Drug-Free Kentucky**

Contact People: Gary Faukner, Executive Director

Potential Project: KET agreed to be part of a proposal to the Fed. Office for Substance Abuse Prevention for funds to conduct a project which would include two teacher training teleconferences annually. Proposal is pending.

GROUPS WITH GENERAL PROJECT IDEAS -

Organization: **Kentucky Broadcasters Association**

Contact Person: J. T. Whitlock, Executive Director

Potential Projects: Mr. Whitlock sent a letter last December suggesting that Star Channels could be used for required disaster and emergency services training. A telephone conversation resulted in the suggestion by Mr. Whitlock that he would contact Mike Malloy to pursue this issue. No further communication has ensued.

Organization: **Private Colleges**

Contact Person: John Frazier

Potential Projects: Sandy passed along a discussion with Mr. Frazier regarding a degree program using distance learning. Specific subject discussed was Pacific RIM Studies Program. To our knowledge, no further discussion has been conducted beyond that initial contact.

Organization: **Governmental Services Center, Frankfort**

Contact Person: Ed Klee

Potential Projects: Several telephone conversations and a meeting with several of GSC staff members led to many potential governmental training opportunities. Their staff were to develop specific proposals and pursue the idea of establishing a production center and microwave link from their facility in Frankfort to KET. It has been several months since our last contact.

Organization: **UK Agricultural Engineering Department**

Contact Person: Dr. William Murphy

Potential Projects: In a meeting with Dr. Murphy and others at UK, we discussed the possibility of delivering Radon training to the southern region of the United States. This training would be general in nature and apply to the general public. No further communication has ensued.

Organization: **UK Dental School**

Contact Person: Dr. Ed Lyon

Potential Projects: A meeting in the fall, 1990, resulted in two potential projects. One would be an annual training session for various health care professionals regarding AIDS. The law requires this training to take place in 1991 with annual updates. Secondarily, they want to explore delivery of a course of study which would certify people as dental assistants. Apparently, there are modules already developed which they believe would adapt very nicely to the Star Channels system. There were to further refine their ideas and get back to us before fall, 1991.

Organization: **Vocational Schools**

Contact Person: Barbara Burrows

Potential Projects: We have met with this staff to explore many possibilities. They are to come back to us with proposals.

Organization: **State Parks**

Contact People: Blueford Rice, Director of Resort Parks
Jim Kennedy

Potential Projects: We have met with this staff to explore many possibilities. They are to come back to us with proposals.

Organization: **Kentucky Department of Libraries and Archives**

Contact Person: Jim Nelson

Potential Projects: Several Projects have been discussed including the training of public librarians and library trusties. Nothing specific yet.

Organization: **Kentucky Assistive Technology Service Network**

Contact Person: Cindy George, Director of Eastern Center

Potential Project: We have discussed the possibility of training people connected with helping the handicapped learn to use devices which allow them to function more independently. Could deliver one-hour teleconference to 5 or 6 sites in eastern Ky. No firm timelines have been suggested.

KET/GED ON TV
USE AND BENEFITS, 1975-1989

	National	Appalachian	Kentucky
Average number of students enrolled each year	150,000[1]	50,000[2]	1,389 avg formally enrolled in GED on TV
From 1975-89, number formally enrolled in GED on TV programs and estimated viewers[3]	2,100,000	700,000	19,446
From 1975-89, number of people who pass the GED exam after viewing the KET/GED series[4]	1,239,000	413,000	11,452
1984-89, 5-year cumulative economic impact based on 70% of those passing the GED exam earning $3,300 more annually)[5]	$12,266,100,000	$4,088,700,000	$104,554,730

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[1] Includes 50 states, Washington, D.C., Guam, Mexico, Canada
700 + adult learning centers
12 PBS systems (over 160 public stations)
38 federal correctional systems, 6 state correctional facilities
200 + bases worldwide for the armed services

[2] Includes 13 states (over 200 adult learning centers)
10 PBS systems
12 federal correctional facilities
8 state correctional systems

[3] Based on formal enrollments in GED on TV and on GED on TV book sales.

[4] National and Appalachian figures based on extrapolation of Kentucky data from 1975-89. During this period 59% of enrollees passed the exam. The yearly average fluctuates. A 1975 study of the Appalachian states by George Eyster of Morehead State University established a 66% pass rate, but the more conservative figure is used above.

[5] Based on *Who Takes the GED Test*, a national survey completed in 1980 by Andrew Malizio and Doug Whitney (available from the American Council on Education), and on 1984 and 1986 U.S. Department of Labor data from the Bureau of Statistics. According to 1986 Department of Labor data, the unemployment rate for adults with 4 years of high school was 6.9% compared to 11.6% for adults with less than 4 years.

With renewed national attention to adult literacy through Project Literacy U.S. (PLUS) and other initiatives, efforts to educate adults have increased dramatically during the last four years. The use and benefits of *The KET/GED Series* have increased in four areas:

***The KET/GED Series offers effective, direct instruction for adults preparing for the GED.** A new version of the KET series was completed in 1985 to update its content and incorporate improvements based on experience with the original series. The series has been the recipient of national and regional awards.

In states where prospective viewers are screened and enrolled in a GED on TV program, the number of enrollees who take and pass the GED test is high. In Kentucky, the pass rate for people taking the test after watching the series and using the accompanying workbooks was 82% in 1987, 75% in 1988, and 67% in 1989. West Virginia began a GED during 1988-89. To date, the pass rate for enrollees taking the test is 98%. This exceptionally high rate is based on early samples of enrollees and is expected to drop somewhat as more enrollees take the exam. In both programs, viewers are screened, encouraged to watch the series or referred to appropriate programs, sent workbooks, and informed about dates and locations for the GED exam.

Among the states broadcasting *The KET/GED Series*, there are a variety of models for how prospective viewers are screened, referred, and encouraged to take the GED exam. Many states and localities have purchased rights to duplicate sets of the 43, 30-minute programs to make them accessible in a variety of settings.

In North Carolina, for example, the Center for Public Television and Community College system work together to provide broadcasts and copies of the tapes. In Detroit, through public television station WTVS, *The KET/GED Series* tapes have been incorporated into Adult Basic Education classroom programs and are also used on a check-out basis for adults who can not meet at classroom sites.

***Graduates of GED on TV programs receive personal and economic benefits.** In a 1990 KET conducted a follow-up survey with 779 graduates of the Kentucky GED on TV program. The median age of the graduates was 33 at the time of the survey, with a range in age from 18-81; they completed the GED test 1-3 years earlier. GED recipients reported the following reasons for completing a GED:

unemployed/needed job	5.8%
employed/needed better job	6.7%
wanted admission to vocational/job training, or college	13.8%
wanted to emphasize importance of education to children	27.3%
wanted self satisfaction	46.5%

They also reported that the GED had helped them do the following:

enroll in college, junior or community college, vocational training, or other program	25.7%
obtain a job, keep a job, or receive a promotion	46.4%
increase income $1-3000/year	18.5%
increase income $3-7000/year	22.1%
increase income over $7000/year	11.8%

Of the 53.8% who were unemployed when taking the GED, half are now employed.

***Broadcasting *The KET/GED Series* serves as an awareness and recruitment tool for basic skills programs.** Many states which are broadcasting the series statewide have discovered its value for promoting adult literacy efforts. In Minnesota, broadcasts are heavily promoted along with the statewide literacy hotline number. During January 1990, the Minnesota hotline received a record 671 calls (the largest number of calls per month received in over 5 years of operation). Over 380 callers specifically requested information about GED programs. Other states have had similar results. During 1988-89, the Kentucky GED on TV program promoted 3 enrollment periods for the broadcasts and received 8972 calls. Of that total, 2825 were enrolled in GED on TV after screening; others received information and referrals to appropriate programs.

***Broadcasting *The KET/GED Series* has fostered public/private sector partnerships.** In most states that are broadcasting the series, representatives from businesses, government, public television, cable systems, Adult Basic Education programs, and other literacy providers come together to coordinate their efforts. These coalitions provide the necessary promotional and referral networks to make the statewide broadcasts for the adults seeking basic skills instruction as effective as possible.

Businesses have been generous in their partnerships. In Kentucky Ashland Oil Foundation made some of the first grants for new initiatives in utilizing the GED series. Since that time, KET has enjoyed generous support for its literacy initiatives and has sponsored a well-coordinated GED on TV program.

In Minnesota, Colorado, and several other states, development and/or distribution of promotional materials has been donated by businesses; broadcast rights have been sponsored with public and private funding. In addition to promoting the GED on TV program last year, *The Contra Costa Times* of California donated copies of the companion books for the series to adult learners in their area. Numerous examples of similar efforts can be found in communities where the GED series is broadcast.

Senator **Pell**. We now turn to Mr. Frederic Glazer, who is the director of the West Virginia Library Commission, Science and Cultural Center, Charleston, WV.

Mr. **Glazer**. Thank you very much, Senator Pell.

What I'd like to suggest is a "national library card," which is not evolutionary nor revolutionary, but merely a return to basics. A simple, interactive entry to the public library is not a modem, code access, computer terminal or high-tech communication device—just a nationally accepted card in the hands of a user is the essence of creating an interchange between lenders of books and readers of books.

In the beginning was the word. The word became the book, and the natural consequence of this is the book in the hands of the borrower. Through issuance of a nationally-recognized library card, it would be possible for all of our citizens, young and old, urban and rural, East Coast and West coast, Sun Belt and Snow Belt, to step up to a circulation desk in any public library in America and borrow a book.

We can launch space probes thousands of miles into the atmosphere and communicate with crew and equipment. We can deploy one-half million troops halfway around the world and provide the supplies and materials to sustain them. We are a very mobile society. There were 650 million trips taken in 1988. A lot of people and a lot of places, spending a lot of money. In fact, probably most of them were using credit, as there were 108 million cardholders using 859 million credit cards. We are advised "Don't leave home without them." But we might as well leave our library cards home because they aren't good when we cross over city, county or State lines.

We are not required to qualify for a license to operate a car in each State. Interstate banking has received a congressional go-ahead. Surely, we can provide our citizens with a library card which can be accepted across State lines.

We must turn our attention to the unencumbered exchange of books across political boundaries. The Federal funds pumped into our Federal library program should be the rationale to offer all of these materials to all of our citizens, regardless of State or place of residence. Geographical and jurisdictional barriers must come down if we truly believe that libraries serve democracy.

There can be one card for all Americans—the all-American library card. Senator Pell, I'd like to present you with the first all-American library card. [Applause.]

Senator **Pell**. Thank you very much.

Mr. **Glazer**. I'd like to also present a card to Mr. Ramirez and his family to visit library resources, West Virginia; and Ms. Kimball, when you walk through West Virginia, we want you to walk into every library, and they'll be waiting for you.

Thank you very much. [Applause.]

Senator **Pell**. Thank you very much, Mr. Glazer.

[The prepared statement of Mr. Glazer (with an attachment) follows:]

PREPARED STATEMENT OF MR. GLAZER

I am Frederic J. Glazer, Director of the West Virginia Library Commission. West Virginia is proud of its tradition of extending library service to all citizens, regardless of place of domicile.

In 1973 the West Virginia Library Commission created the nation's first Statewide Borrowers Card. How, eighteen years later; we are preparing to extend use of our library services to visitors in our communities who are away from home and wish to borrow a book.

As a result of our third Governor's Conference on Libraries in 1990, West Virginia offered the world's first International Library Card, honored at 51 locations around the globe (Attachment 1).

Today we wish to strike a balance between a library card offered only for use throughout West Virginia and one good for global travelers. A resolution from our recently concluded Governor's Conference called for the creation of a National Borrowers Card. To this end the West Virginia White House Conference delegation proposes a resolution which would recommend the creation of a borrower's card nationally recognized in public libraries in all states, the District of Columbia and territories. We would encourage all states to endorse this concept in their Long Range State Program. We hope that the White House Conference in its resolutions will request Federal funding for LSCA Title III, earmarked to initiate implementation of the National Card over a five year period.

If libraries are to serve democracy and provide for the enlightenment of all of our citizens, there can be no barriers or restrictions to access of the materials in our public libraries . . . public libraries that have most-likely benefited in several ways from Federal Library Services and Construction Act funds during the 35 years of the Act. Specifically, Federal funds under LSCA Title III have been categorically set aside for interlibrary cooperation and resource sharing grants. The natural extension of Title III would call for encouraging and facilitating the interaction between a library borrower and a public library . . . giving the opportunity for a person having a nationally accepted card to have borrowing privileges at any public library in any state which receives any form of federal funds under LSCA.

To disallow citizen access to walk-in library service in publicly funded libraries is a denial of democracy. Geographic location and domicile should not restrict or deny any of us the opportunity to walk into any public library in America and borrow a book . . . provided that the person is a registered library user in their locality and had an opportunity to acquire a nationally recognized borrowers card. In a democracy, the library not only collects and stores information and materials, but the library distributes the information and materials. Freedom to know and acquire materials is an open door to an unrestricted public library.

We are witnesses to rapid change and upheaval in nations which relied on repression and restriction of information to subject their people. The quest for democracy has tumbled global walls of separation, and where information had seeped through the cracks, it is now pouring across borders. The propelling force has been and will continue to be the dream of democracy . . . the desire for the free flow of goods, services and information. The desire to know and discover wild crumble walls and unlock chains of repression. From the ugliness of the Berlin Wall to Tianannmen Square to the impoverishment of Soweto, the human spirit seeks release from unnatural bondage.

We are a free people in a democratic society and we are certainly among the most mobile in the world. In 1989, 34 million U.S. adults took a total of 170 million business trips. All travel by U.S. residents in 1988 totalled 656.1 million trips taken by 1,232.5 million people. Distances travelled averaged almost 1,000 miles and overnight stays averaged 4.6 days per trip. A lot of people, in a lot of places, spending a lot of money! In fact, probably most of them left home using credit . . . as in the same year there were 108.4 million cardholders using 859.5 million credit cards! All of which is to point out that travelers are advised "Don't leave home without it". . . the credit card. But these same travelers might as well leave their library cards at home, because they would not be able to borrow a book beyond their city or county limits!

A nationally accepted borrowers card will democratize the opportunity for library service. The issues considered at State conferences and subsequently selected for the White House Conference identified no fewer than 30 instances which call for a nationally accepted library card. The Chief Officers of State Library Agencies in their Legislative Principles for the White House Conference declare a "Right to Quality Library and Information Services. Every individual, regardless of geographic location, disability, age, literacy level or other condition shall have access to basic library service."

We can launch space probes thousands of miles into the atmosphere and communicate with crew and equipment.

We can deploy one half million troops halfway around the globe and provide the supplies and materials to sustain them.

Fortunately or unfortunately, we are not required to qualify for a license to operate a car in each state.

Interstate banking has received Congressional go ahead.

Credit cards have created an unprecedented ability to acquire goods and services in every part of our country.

Surely we can provide our citizens with a library card which can be accepted across State lines.

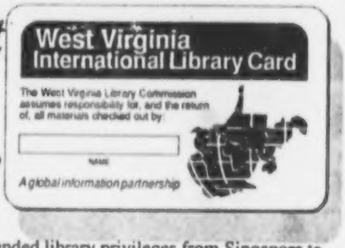
We must turn our attention to the unencumbered exchange of books and information across state lines. There are federal funds pumped into our public library programs. This in itself should be part of the rationale to offer materials found in public libraries to all of our citizens, regardless of state or place of residence.

Geographic and jurisdictional barriers must come down if we truly believe that libraries serve democracy.

There can be one card for all Americans—the All America Library Card!

From the people who created the nation's first Statewide Borrower's Card...

the world's first International Library Card!


West Virginia
International Library Card
The West Virginia Library Commission assumes responsibility for, and the return of, all materials checked out by:
NAME
A global information partnership

Bearers of the enclosed library card are extended library privileges from Singapore to Helsinki and many places in between. All of the VTLS worldwide automated libraries will honor this card to the distinguished West Virginians who visit these Libraries.

Your gateway to the world of information begins at the local public library and the West Virginia Library Commission.

The West Virginia International Library Card is honored at the following locations.

[illegible]

[illegible]

Republic [illegible]
[illegible]
Saudi Arabia
[illegible]
Spain
[illegible]
Sweden
[illegible]
USSR
[illegible]

BEST COPY AVAILABLE

Senator PELL. Now we'll hear from Richard Miller, who is the State librarian from Helena, MT. We skipped over you before because I was hoping Mr. Williams would be back to introduce you, but he is busy voting for the Whip on the House side.

Mr. Miller.

Mr. MILLER. Thank you, Senator Pell. I am glad to be here.

I am happy to be here to testify before this joint congressional hearing and especially to—I hope—great Representative Williams before the end of this hearing, from the great State of Montana, my adopted home State.

The Chief Officers of State Library Agencies, COSLA, have asked me to speak on their behalf. I will be drawing my remarks from a document recently approved by COSLA and entitled, "Legislative Principles for the White House Conference on Libraries and Information Services," and although I don't have time to review all the points of this excellent statement, a copy of which is attached to my testimony, I would like to offer the following summary.

COSLA advocates four basic principles on which to proceed for the improvement of library and information services in the United States. First, every person, regardless of geographic location, disability, age, literacy level or other condition, shall have access to basic library services.

Second, libraries and other information providers must use new technology to improve services.

Third, well-educated and competitively-paid staff who continuously upgrade their skills are essential for equal access to services.

Fourth, the Federal-State partnership needs to be strengthened by means such as improving fiscal strategies, increasing discretion at the State level, and an upgraded status for library programs within the Department of Education.

I request that you read my complete testimony and the complete text of the COSLA document for more details.

Finally, let me end by mentioning a few concerns from Montana and from I think much of the West. Some months ago, a blue ribbon panel in our State completed a report on "Libraries at Risk," and I will attach a copy of that to my testimony as well. Several of the points made in that report include the possibility of establishing joint public and school libraries, especially in small towns; the need for creative public and private sector efforts, and the lack of health care information to our rural areas. These issues also emerged from our governor's conference.

We are also concerned about the literacy levels on our Native American reservations.

At the Federal level, I hope you will re-examine the difficulties faced by large, sparsely-populated States such as Montana. Costs associated with getting services to widely dispersed population centers, for mileage, for telecommunications and so forth, are prohibitive. Just because people live in such areas does not mean that they are less deserving or less needful of library services. I ask that you recognize this fact and work with those of us in the West and other sparsely-populated areas in sorting out an acceptable compromise on this issue.

Several months ago, the Mark County City Library in White Sulphur Springs moved to a newly-renovated library, and just to give you an example of how things may be a bit different in the West, they moved their books by putting them on wooden pallets, covering them with saran wrap, and moving them in a horse trailer. Now, I am originally from Pennsylvania, and I guess I consider myself a city boy to start with, so to make conversation I said, "Did you sweep out the horse trailer before you moved the books?" And I was informed in no uncertain terms that you don't sweep a horse trailer—you shovel a horse trailer. [Laughter.]

The West is indeed unique in some ways. I hope that Federal support for libraries can reflect the diversity and uniqueness of our country.

Thank you for the opportunity to testify before you today. [Applause.]

Senator **Pell**. Thank you very much, Mr. Miller.

[The prepared statement of Mr. Miller follows:]

PREPARED STATEMENT OF MR. MILLER

Good morning, Senator Pell, Senator Simon, and Representative Williams (and other members of the committee if present), delegates, alternates, observers and others present at this historic second White House Conference. My name is Richard Miller, and I am the State Librarian in Montana. I am most happy to be here today before this Joint Congressional Hearing, and especially to greet Representative Williams from the great state of Montana, my adopted home state, and thank you for the opportunity to testify. I have been asked to testify today representing the Chief Officers of State Library Agencies. I intend to begin my testimony doing just that, to add comments specific to Montana and to the West (if I may be somewhat presumptuous), and then to end with Montana-specific testimony. I mentioned the word "presumptuous" because I have lived in Montana for only two and one-half years, having sojourned for fourteen years in Missouri, and having been born and raised in Pennsylvania. I hope that, in asking me to testify for the Chief Officers, there may have been some recognition that I have lived and worked in three distinct sections of the country. But I have a feeling that it had more to do with the presence of Representative Williams at this Joint Hearing, and the essential role he played in the reauthorization of the Library Services and Construction Act and in his efforts to promote the use of acid-free paper for federal government documents. We have Senator Pell to express our thanks to also, for all his efforts in regard to acid-free paper as well.

COSLA-RELATED TESTIMONY

I will begin by summarizing the document recently produced by COSLA entitled, "Legislative Principles for the White House Conference on Libraries and Information Services." This is an excellent document and is attached to my testimony before you today. In the introduction to this document, COSLA noted the following:

—The effective functioning of American democracy, a literate and educated workforce, and the productivity of our economy all require high quality and broadly scoped library and information services.
—Each level of government—federal, state and local—have roles and responsibilities to play in providing these services.
—This White House Conference offers an opportunity to reexamine the federal role in support of these services.
—Despite regular attempts to eliminate or reduce significantly funding for LSCA, Congress has continued to recognize the need for its continuance.
—The funding for college and university libraries has continued since 1964 but has been weakened and is inadequate.
—Since the placement of funding for school library media centers was moved from categorical funding to block grant funding with discretion to be exercised at the local level, such libraries have suffered tremendously from lack of adequate funding.

The following legislative principles, approved June 28, 1991 at the COSLA meeting in Atlanta, Georgia, reaffirm the organization's support for the Federal roles and action recommendations included in the document. The following principles are presented for your consideration:

Right to Quality Library and Information Services

—Every individual, regardless of geographic location, disability, age, literacy level or other condition, shall have access to basic library services.

—Libraries need to strengthen existing services through partnerships with all levels of government, especially to meet the needs of an ethnically and culturally diverse population.

Everyone knows how the demographics are changing in this country—we are becoming more diverse. The workforce already consists of a larger number of groups which previously were considered "minorities"—women, African Americans, Native Americans, other people of color, older Americans, and those with disabilities—than has ever been the case in the past. We cannot afford not to educate all our people since we no longer have the luxury of assuming a homogeneous workforce (and perhaps we never did, but only thought we did). We also cannot afford to "write off" whole sections of our country or whole sections of our cities because "those people don't read and really don't need library services" or because they are located in areas so sparsely populated that it is not cost-effective to offer services. These are the areas from our future leaders are going to come. If we deny adequate library services to these areas, we are "shooting ourselves in the foot" and responding to an old model of service which no longer exists.

Technology Supports Improved Services

Improved technological resources are needed if library and information services are to keep up with the demands of our Information Age. This was recognized in the recent reauthorization of the Library Services and Construction Act in which allowances for technology were added to the language for Titles I, II and III, at the strong insistence, as I understand it, of Representative Owen.

—National standards to provide for networking of existing resources are needed.

—Libraries must be included in NREN, the National Research and Education Network, in order to assure access to the widest possible constituency.

—Library records must be converted to electronic formats to increase the base of shared resources.

—Libraries must have adequate equipment and trained staff to provide access to these new technologies for their customers.

Better Personnel Means Better Service

—Libraries and information centers need well-educated, competitively paid, and well-trained staff in order to provide equal access to library services.

—A significant shortage of professional librarians is forecast for the year 2000 because of the closing of a number of graduate library schools, and the "graying" of the profession.

—Library personnel must constantly upgrade their knowledge and skills through continuing education in order to keep pace with changing technology, the information explosion, and more culturally diverse, better educated clients.

Strengthening the Federal/State Partnership

—All federal programs for library services must be administered by the state library agency.

—Federal library programs should have as few separate titles as possible, and state library agencies should be allowed more discretion to direct federal funds to meet Congressional priorities at the state and local levels.

—Planning and evaluation of statewide library services are critical and must be done in cooperation with..all types of libraries, other information providers, agencies of state government, and citizens of the state.

—The federal government must recognize the role of libraries as information providers when addressing issues such as drug abuse, literacy and youth at risk and include funding for libraries.

—Funding formulas should allow for diversity among the states, "maintenance of effort" should be properly defined, and forward funding should be sought for LSCA.

—The administrative level of library programs within the U.S. Department of Education should be upgraded.

MONTANA-RELATED TESTIMONY

Now that I have done my duty to represent COSLA, I ask your indulgence for a few more minutes while I add some Montana-specific (and perhaps Western perspective) comments. As I stated at the beginning of my testimony, I have lived in Montana for the past two and one-half years, and so it may be a bit presumptuous for me to making statements which I purport to represent the Western perspective. Nevertheless I will make such statements, based on the findings of Montana's Blue Ribbon Panel on Libraries at Risk which was appointed by our State Library Commission and headed up by James Nybo, who is the chair of Montana's delegation to this conference. A copy of the findings of this panel is attached to my testimony before you today. I will not go through all the findings, but commend it to your reading. Some of the highlights of the study include the following:

—The "risks" related to libraries in Montana fall under three main categories: funding, cooperation, and technology. (Sounds very much like what we are dealing with at this conference.)

—Especially in smaller communities, the possibility of joint services and facilities between public and school media centers must be explored because the tax base is not sufficient to sustain two separate facilities.

—Creative partnerships between public and private sectors must be explored and established because of limited resources and if libraries can hope to keep up with the information explosion, and new technology, etc.

—Montana is about to become the country's largest U.S. House of Representatives' district because the state will move from two representatives to one in the House, this despite the fact that Montana is the fourth largest state geographically and its population grew about 2% since 1980.

I have heard the arguments and have had arguments with my counterparts in other states concerning representation and funding for larger, western, sparsely populated states and there probably is no way to work around the fact that it costs more to serve more people. That is why much federal funding is "population driven." But I want there to be a recognition that it also costs more to reach people in a state like Montana—in mileage costs, in telecommunications costs, and so forth. Having been born in Pennsylvania I, at one time, possessed the typically eastern lack of understanding about the expansive distances in the west. I thought Pennsylvania was a large state as I used to drive across it. But several years ago I used a map produced by one of my staff during the LSCA oversight hearings in Kalispell, Montana which shows Montana superimposed on a map of the midwest and parts of eastern United States. Here is what it showed. If the northwest corner of Montana were to be placed in Chicago, its eastern border cuts through Washington, D.C. Yet the entire state has 799,065 people.

I mentioned earlier that the United States cannot afford to ignore any of its people, for the demographic reasons stated earlier. The new telecommunications technology lends itself to providing services in a state such as Montana, but it does not come cheap. And that is where the federal government comes. It is obvious that with under 800,000 people, the tax base is insufficient to support adequate services of all sorts in the state. But, if the entire country is to be competitive, we will have to recognize that people in remote parts of this land cannot be ignored. Given the political realities of our country, one part of the country will not willingly give up resources. Therefore, it will probably be necessary to increase the amount of funding under LSCA and other library-related funding. I ask that you specify such funding to recognize that difficulties faced by states such as Montana in attempting to get library and information services to its citizens. The lesson has recently been learned with highway funding. The sparsely populated western states will be receiving more money in recognition of the many additional miles of road. But this was only accomplished by "sweetening the pot," so to speak, so that more populous states would not lose their highway funding.

I have learned much since moving to Montana. Recently Meagher County-City Library in White Sulphur Springs moved into a newly-renovated public library. The books were moved by horse trailer, put on wooden pallets and wrapped in Saran Wrap. Making conversation with a local official, I asked if the trailer had been swept out before being used. I was informed that horse trailers are not "swept out," but "shoveled out." Some things are different in the west. Federal support for libraries needs to support and recognize these differences.

Thank you for the opportunity to testify before you today.

Legislative Principles for the White House Conference on Libraries and Information Services

INTRODUCTION

Effective functioning of American democracy requires equal access to library and information services for all citizens. A literate, educated workforce supported by up-to-date information resources and technology is essential if this country is to have a productive economy competitive in the global marketplace. Therefore, the greatest possible scope and quality of library and information services must be available to all people.

Each level of government has appropriate roles and responsibilities to perform which are complementary to one another, and each level must provide strong leadership in the development of library and information services.

The White House Conference on Library and Information Services affords an opportunity to re-examine federal roles in support of library and information services. Members of Congress have asked that the White House Conference recommend ways that the Library Services and Construction Act can be expanded and strengthened when reauthorized in 1994.

Since 1956 the Library Services and Construction Act has enabled states and localities to develop and improve services for all persons, to improve public library facilities, and to create interlibrary cooperation and resource sharing networks. Congress has repeatedly rejected administration proposals to eliminate LSCA, to narrow its focus, and to reduce its funding. Federal assistance for college and university libraries and for library education have been included in the Higher Education Act since 1964, although provisions have been weakened and funding has been inadequate. Federal support for school library media programs, once provided in the Elementary and Secondary Education Act, was weakened when these provisions were incorporated into the Education Consolidation and Improvement Act in 1981 with use of funds determined solely at the local level.

The Chief Officers of State Library Agencies (COSLA) participated with other library organizations in developing and adopting the position paper *Public Library Services for a Diverse People: The Roles of the Federal Government.* The Chief Officers reaffirm their support for the Federal roles and action recommendations included in that document. To strengthen these and other proposals, COSLA presents the following legislative principles from the states for discussion by participants in the White House Conference on Library and Information Services.

Right to Quality Library and Information Services

Every individual, regardless of geographic location, disability, age, literacy level or other condition, shall have access to basic library services.

For each American, the library is the most popular and most available education and information resource. Increasingly, other government agencies are depending upon libraries as their primary or secondary distributor of information and materials, ranging from environmental studies to tax forms. However, the tax base and capacity of local governmental units to provide adequate collections, facilities, staffing and services varies greatly. This calls for federal and state funding to ensure equitable library services for all.

As the 21st century approaches, libraries need to strengthen existing services through a partnership of federal, state, and local governments while developing new collections and services to respond to needs of an ethnically and culturally diverse population.

Technology Supports Improved Services

Libraries and other information providers must utilize new and developing information technologies to address contemporary service requirements.

Information resource sharing supported by national standards is a successful strategy used by local libraries to expand their service capacity. New technologies which can greatly expand this capacity must be made available to and affordable for libraries and other information providers to address contemporary service requirements.

Specifically:

- —National standards which strengthen technological relationships among libraries and other information providers must be achieved.
- —The proposed National Research and Education Network (NREN) must include libraries as important components of this new high end technological capacity.

- State telecommunications networks must incorporate libraries as key local connections in the state's information infrastructure.
- Library bibliographic records must be converted to electronic formats to broaden the base for general resource sharing.
- Libraries must be encouraged to develop, maintain and provide access to quality full-text databases of local and regional information.
- All libraries must have the equipment and trained personnel to offer their customers the resources and services available through the new technologies.

Libraries must effectively utilize information technologies to better manage their operations and integrate information resources in new formats into more comprehensive service programs. Centers for technological innovation must be developed in libraries to build on our profession's commitment to user service.

BETTER PERSONNEL MEANS BETTER SERVICE

Personnel who are well educated, competitively paid, and who continuously upgrade their knowledge and skills are essential if everyone is to have equal access to basic library services.

There is strong evidence that by the year 2000, there will be a serious shortage of professional Librarians. The closing of a number of graduate library schools is having an impact on this projected shortage. Aggressive recruiting, more scholarships, expanded access to graduate library education, and improved salaries are all needed to attract and retain "the best and the brightest" representatives of our diverse culture in a highly competitive workforce.

Personnel in libraries must upgrade their knowledge and skills by participating in continuing education opportunities and programs in order to cope with changing technology, the information explosion, a more diverse and better educated clientele, cultural diversity and other demands placed on the local library.

STRENGTHENING THE FEDERAL/STATE PARTNERSHIP

State library agencies are charged with the responsibility for the establishment, improvement, and evaluation of library services statewide. These agencies are in a unique position in each state to evaluate the library needs of its citizens and develop programs and services to meet these needs. Therefore, all federal programs for library services must be administered by the state library agency.

Federal library programs must be flexible so each state can determine how federal funds are to be used to address the needs of the states. It must be recognized that, due to differences among the states, federal priorities and state priorities do not always coincide. In order to provide the best library service to all, COSLA recommends that there be as few separate titles as possible in all federal library legislation and that the state library agencies be allowed more discretion to direct federal funds to meet Congressional priorities at the state and local levels.

Planning and evaluation of statewide library services are critical functions of state library agencies and must be done in cooperation with all types of libraries, other information providers, agencies of state government, and citizens of the state.

The federal government must recognize the role of libraries as information providers in legislation addressing such pressing concerns as drug abuse, literacy, employment training, youth at risk, and an aging population. Information components of such programs must include funding for libraries.

To strengthen the federal/state partnership, special consideration should be given to funding formulas which account for diversity among the states; a maintenance of effort which is properly defined; and, forward funding for all federal library programs.

With these positive changes and renewed efforts to upgrade the administrative level of library programs within the U.S. Department of Education, a strengthened federal/state partnership will work for improvements in library and information services to benefit Americans.

COSLA Legislation Committee

William G. Asp
James W. Fry
James B. Johnson
Bartholomew A. Kane
James A. Nelson, Chair
J. Maurice Travillian
Sharon G. Womack

Senator PELL. I am happy to say that we have been joined by Congressman Owens and Congressman Neal, who will take over from here. I believe Congressman Neal will have some interesting testimony to offer.

I wish everybody here good luck in this White House conference. I hope you do as well as the last one, where 55 of your 64 recommendations were incorporated into law. Some of the ideas that have been advanced here are obviously excellent, and I would hope that the percentage of acceptance and success may be the same.

I now turn the gavel over to Congressman Owens.

Mr. OWENS. [Presiding.] I understand Congressman Neal has a statement to make.

OPENING STATEMENT OF REPRESENTATIVE RICHARD NEAL

Mr. NEAL. Thank you very much, Mr. Chairman.

I apologize for being late, but like the other members of our caucus, the 274 members of the Democratic Caucus, they are on Capitol Hill right now, participating for the election of the new Democratic Whip, and that's why you and I obviously were late.

I want to thank Senator Pell as well. One of the things I am proudest of in the 17 years that I have been in public life from the city council to the mayor's office to Congress has been consistent support for libraries. I'd like to offer just a couple of brief quotes that I think are not only timely, but I also think that they very clearly demonstrate that the library, as Mr. Cohen of the *Washington Post* reminds us, is an essential public service.

"If this Nation is to be wise as well as strong, if we are to achieve our destiny, then we need more ideas from more wise men reading more good books in more public libraries." That's a quote from Senator John F. Kennedy, who was responding to a questionnaire in the *Saturday Review* on October 29 of 1960.

But most importantly, for those of us in Western Massachusetts, we are reminded of Kennedy's journey as President to dedicate the Frost Library at Amherst College.

"Libraries are memories, and in this library you will have the memory of an extraordinary American, much more than that, really, an extraordinary human being. And also you will have the future. And all the young men who come into this library will touch something of distinction in our national life and, I hope, give something to it." Those were President Kennedy's remarks on October 23 of 1963 as he dedicated the Frost Library.

Now these are remarks from Congressman Neal.

Many people in these hard economic times have come up with the idea of cutting library services as a way of balancing a local, State or Federal budget. The current administration is requesting a cut of more than 75 percent in the Education Department library programs from the $143 million appropriated last year to $35 million this year.

These people should look back at our history to see how other generations dealt with similar situations. Listen to this. During the height of the Depression, the Mayor of Boston, James Michael Curley, increased the number of libraries and their employees to over 600 people. Today Boston has 485 employees.

The great New York City Library, which is a mecca to all of us, located on 5th Avenue, was open 365 days a year during the Depression. Today it is open 6 days, with limited hours.

These reductions that are discussed today come at a time when services that a library provides are needed more than ever. Studies have shown that a larger number of people use the library and its services in times of economic hardship than when the economy is in an upward swing. Many people will browse the want ads looking for new jobs, but also we understand that they are there for a sense of relaxation and information.

With less discretionary funds, the library offers a place where the entire family can go and to enjoy an evening out without having to pay for it.

Today, all across this Nation, hundreds of libraries are facing the realization of closing down. Many point out that libraries are not essential services, as fire or police protection. And while libraries are not in the business of saving or protecting citizens' lives, they certainly are in the business of molding and shaping a young boy or a young girl's mind. [Applause.]

When we lose a library, we forfeit the opportunity for someone to benefit and to better themselves. Someone to fall in love with the simple joy of reading. Someone when new hopes and dreams and ambitions are about to be dashed.

Let this generation follow the legacy of previous generations and commit ourselves to maintain these treasures of the mind.

I want to thank you, Mr. Chairman, and to remind all who are here today that I remain steadfast in my support of the concept of the public library. The Founders never intended the public library system to be a private enterprise undertaking. It was always intended to be supported by the public and for the public, and I think that it is tragic what we are allowing to happen across this country in the name of fiscal responsibility.

Thank you all very much. [Applause.]

OPENING STATEMENT OF REPRESENTATIVE JESSE OWENS

Mr. OWENS. I won't harass you with another statement today. I want to thank you for the 16 minutes you gave me at your session yesterday. There are two points I would like to make, however.

One is that I went to the Congressional Research Service and got a detailed listing of the appropriations for libraries since they began with the Federal Government in 1957. The authorization was first in 1956, and it took a year before they gave us I think the first $2 million in 1957.

I had my staff add up all the appropriations since 1957 until now. They totalled—and I left the slip at my office, so I don't have the exact amount—$2.3 billion over 35 years; $2.3 billion is the Federal contribution to libraries over 35 years. An aircraft carrier will cost you $3.5 billion—one aircraft carrier.

The tone is set here in Washington, and unfortunately is picked up by the States and local governments, that libraries are not significant. The tone is set here. The last President put zero in the budget for libraries for every year that he was President. This one has chosen to be more kind and put in $35 million. Fortunately, in the House we have already raised that to $126 million. [Applause.] Before you applaud, you should understand $126 million represents a cut for the Library Services and Construction Act.

Finally, I say that to urge you to make certain that the deliberations of this White House Conference are personally delivered by you to your congressmen. Everything possible must be done to raise the level of awareness of congressmen, so that the tone set in Washington is changed over the next few years.

I walk around all the time with the words of Shakespeare's King Lear ringing in my ears: "Fools be not to bear it tamely; touch me with noble anger"—when I see the waste that goes on here and compare that with the paltry sums that they are willing to give the libraries, I am angry all the time. You should go to your congressmen with some of that same anger.

Thank you. [Applause.]

I understand there is a 4-minute video from "MacNeil-Lehrer" that we're going to see right now.

[Videotape shown.]

Mr. OWENS. Unless some witness has one last statement to make, we can let Roger Rosenblatt have the last word. I understand we had extraordinary testimony, and I regret the fact that the election of the Democratic Whip has kept some of us away, but I assure you I will examine the testimony in writing.

Are there any last urgent statements?

[No response.]

[Additional statements submitted for the record follow:]

PREPARED STATEMENT OF MR. BENDER

I am David R. Bender, Executive Director of the Special Libraries Association (SLA), and I want to thank the members of the Joint Congressional Hearing on Library and Information Services for this opportunity to discuss the role of our Association and the special library in the White House Conference on Library and Information Services. The Association and its members are dedicated to the advancement and improvement of communications and the dissemination and ultimate use of information and knowledge for the general welfare of all users.

SLA is an international organization of more than 13,000 librarians, information managers, and brokers. Special librarians and information professionals serve business, media, finance, research, science, government, museums, trade associations, research institutions, and nonprofit organizations. The one common thread in these libraries and information centers is that all have collected and organized specialized information in specific subject areas or in the support of specific missions in order to meet the information needs of their respective clienteles.

While essentially established to assist the users within their own institutions, the purpose and mission of special libraries and information centers have expanded as the environment in which they serve has grown and advanced in the Information Age. The special library/information center now provides a wide range of information services, to a not so limited clientele (particularly in government libraries), and plays a major role in the advancement of information policy and information products and services which foster and promote these policies.

Delegates to the national meeting of WHCLIS must understand and appreciate the value and role of special libraries/information centers and the professionals who service these collections. The resources of special libraries are vital to the development of this nation technically, scientifically, and socially by virtue of the advancements made by the organizations and institutions within which they serve. These special library collections are there for others to use; therefore, special libraries can have a role in meeting the information needs of the community at large.

No national library and information services program, nor national information network (such as the proposed National Research and Education Network), should be planned or implemented without the assistance and expertise of the special librarian/information professional.

National information policies and strategies must incorporate the wealth of specialized information which could be made available to even larger segments of our citizenry. General public libraries and citizens need to be cognizant of the fact that these collections can help meet the needs of a variety of users. Special librarians want to play a part in providing local, state, and national information services and indeed, special libraries must be an integral part of the total information picture.

SLA's constituency represents a broad spectrum of subject areas and is an experienced cadre of librarians and information specialists. According to our 1991 membership survey, more than half of SLA's members are in the corporate sector. United States industry has recognized that improved productivity and competitive advantage depends on how well information and knowledge resources are utilized in developing products and services. William Esrey, who spoke at the opening session of WHCLIS about productivity, eloquently discussed the pivotal role of the corporate information center at his corporation, United Telecom, and made special mention of the outstanding work done by the corporate librarian, who is a member of SLA. We know that there are many other SLA members who have done much to communicate the value of the corporate/special librarian to the captains of industry.

SLA has gone on record in support of the goals and concepts of this second White House Conference, and a contingent of SLA members, elected leaders, and staff attended both White House Conferences. The following are some of the issues which address the needs of SLA members and we hoped would be addressed during WHCLIS II:

—ways the library community can and should work with the private sector in the dissemination of government information;
—privatization/contracting out;
—the growing role of librarians/information specialists in the globalization of information;
—the important role played by corporate, federal, and other special libraries and information centers;
—strengthening public-private partnerships as federal funding for library-related initiatives dwindles;
—maintaining open access to government information to guarantee democratic and economically sound economy;
—protecting the confidentiality of library records maintained in public institutions;
—preservation of books and other publications regardless of format;
—marketing the profession and other resources offered by all librarians and information specialists;
—understanding and use of new and emerging technologies by the library/information profession as well as the end-user;
—copyright and intellectual property; and
—national information policies.

Again, on behalf of SLA and its members, I want to thank the members of the Joint Congressional Hearing on Library and Information Services for this opportunity to share our thoughts on libraries and information services as we prepare for the 21st century. We appreciate the assistance provided by the both the National Commission on Libraries and Information Sciences and WHCLIS staff in making SLA part of the planning process for this 1991 White House Conference.

PREPARED STATEMENT OF MS. WARDEN

I am Margaret S. Warden, former Montana State Senator; former member of the National Commission on Libraries and Information Science; a former member of the

Montana State Library Commission; and a long time supporter of adequate funding for all kinds of libraries.

I have seen the growth of libraries with the passing of Library and Services Construction Act. This has made it possible for rural states like Montana to provide more coverage for the large and small libraries.

Sheila Cates from the Montana State Library has collaborated with me in providing this material from Montana which I am sending by FAX this afternoon.

Please send this to Rick Jerue for the Joint Congressional Hearing in conjunction with the Joint Hearing that Congressman Pat Williams and Senator Claiborne Pell are chairing in conjunction with the White House Conference on Library and Information Services.

Funding for libraries in Montana currently is a mixed bag. On the state level, a certain amount of success has been achieved from the past two legislative sessions. Libraries in Montana received general fund state aid support for the first time in the 1989 legislative session when the Montana legislature approved a state aid package, that included a statewide library card, interlibrary loan reimbursement, support for the six public library federations and direct state aid for public libraries. However, funding was only authorized for the interlibrary loan reimbursement and the federation support. The state's library community maintained its lobbying efforts, and in the 1991 session, as well as retaining the interlibrary loan reimbursement and federation support, funding was also approved for direct state aid for public libraries. In the fall of 1991, Montana's Public libraries will be paid $.125/per capita and $.125/per square mile from the general fund.

Library funding at the local level has not been as successful, The December 1990 "Report of the Blue Ribbon Panel on Libraries at Risk to the Montana State, Library Commission" reiterated the severe impact the 1986 freeze on local property tax levels has had on local libraries. "This funding constraint has placed local public libraries in a horrendous squeeze, caught between increasing demands for services, rising costs of materials, and declining, revenues to provide them." After two years of successful emergency mill levies in Lewis & Clark County, Helena, voters turned down the same proposal this year, and as a result the library has had to lay off staff, close on Mondays, reduce branch hours, and slash its book budget by approximately 80% for this next fiscal year. Great Falls Public Library will have a materials budget of only $50,000—when a library its size typically would have a material's budget of $150,000. Public libraries in northern and eastern Montana have told the State Library they are anticipating efforts to reduce their fiscal year 1992 budgets.

The Blue Ribbon Panel also addressed the status of other types off libraries in Montana. For school library media centers, the panel reported that in 1990, Montana's 769 schools had only a total of 311 full time equivalent certified school librarians (that translates to only 40%) and many elementary school libraries are staffed only by aides.

Academic libraries in Montana have also suffered dramatic budget woes. It has been 15 years since the University of Montana's Mansfield Library has added to its overall number of journals. Montana State University has canceled 25% of its journal titles in the last five years. Inflation in the costs of materials has continued unabated, so the libraries' purchasing power has diminished significantly. In addition the number of professionally trained librarians in Montana's academic libraries has decreased. Currently the director's position is open at three of the University System's six libraries.

There are a few bright spots on the horizon: The University of Montana's Mansfield Library received funding for cooperative automation with the Missoula Public Library. It also will be one of the libraries to participate in the Library of Congress' American Memories Project. Parmly Billings Library will open its doors to users more hours each week beginning this fall, Missoula Public Library anticipates a substantial budget increase for fiscal year 1992. Butte-Silver Bow Public Library will be moving into a newer, larger facility later this year.

It is also impossible to discuss libraries and library service in Montana without mentioning LSCA funding and its impact in Montana. LSCA funds have provided staff and resources at the State Library to assist Montana's public and institutional libraries in providing improved library service to their patrons. In addition, LSLA supports a major portion of the State Library's Library for the Blind and Physically Handicapped which serves approximately 2,500 Montanans.

LSCA has also had a direct impact on Montana's local communities. Since 1983 Title II funds have built new libraries in Laurel and Belgrade and funded extensive additions or helped acquire new facilities for Havre-Hill County Library, Meagher County/White Sulphur Springs, Bitterroot Library/Hamilton, Lincoln Branch of

Lewis & Clark County, Plains Public Library, Lewistown City Library, and Sidney Public Library. There have been other LSCA projects in Flathead County, Winnett, Fort Benton, and Scobey as well as a new location for Glendive in the next few months and a new building for Boulder's Community Library.

Titles I and III funds have been used to: help the state's libraries share their limited resources through supporting Montana as a founding member of the now Western Library Network (WLN), provide grants to libraries to add their holdings to the Western Library Network's database (5 million plus holdings of libraries in Montana and the Pacific Northwest), and provide grants to 39 libraries in the state to acquire WLN's LaserCat technology (microcomputers, CD ROM drives, and LaserCat—WLN's database on compact disk). Missoula Public Library, one of the first libraries in the state to be active in local literacy efforts, received some of its first funding from a Title I grant from the State Library Commission. Five school libraries in communities where no public library exists (Alberton, Lambert, Lame Deer, Marion, Opheim) were funded to demonstrate how they could extend their hours and services to the non-school public. Of the five, four have continued to offer public library service to their communities, two of them (Marion and Opheim) as official branches off the county library system. Ninety eight Montana librarians (school, public, academic and special) from Baker to Eureka and Darby to Plentywood have been trained to provide enhanced reference services to their patrons through two LSCA-funded Reference Institutes held in June of 1989 and 1991 in Helena. Though it has not yet been approved for funding the concept of a statewide library card was successfully demonstrated by 14 libraries in southeastern Montana through an LSCA-funded project.

The Library Services and Construction Act has done much to improve library service in Montana. However, because we are a small state in terms of human and material resources, there is still much to be accomplished that needs continued federal, support.

Thank you for the opportunity to tell you about Montana's libraries.

The joint hearing is now adjourned.

[Whereupon, at 11:35 a.m., the subcommittees were adjourned.]

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